

General Disclaimer

One or more of the Following Statements may affect this Document

- This document has been reproduced from the best copy furnished by the organizational source. It is being released in the interest of making available as much information as possible.
- This document may contain data, which exceeds the sheet parameters. It was furnished in this condition by the organizational source and is the best copy available.
- This document may contain tone-on-tone or color graphs, charts and/or pictures, which have been reproduced in black and white.
- This document is paginated as submitted by the original source.
- Portions of this document are not fully legible due to the historical nature of some of the material. However, it is the best reproduction available from the original submission.



Technical Memorandum 86216

MIZEX '84 NASA CV-990 Flight Report



Per Gloersen, Erik Mollo-Christensen,
Tom Wilheit, Tom Dod, Richard Kutz and
William J. Campbell

May 1985

National Aeronautics and
Space Administration

Goddard Space Flight Center
Greenbelt, Maryland 20771



MIZEX '84 NASA CV-990 FLIGHT REPORT

**Per Gloersen
Erik Mollo-Christensen
Tom Wilheit
Tom Dod
Richard Kutz**

**Laboratory for Oceans
Goddard Space Flight Center
National Aeronautics and Space Administration
Greenbelt, Maryland 20771**

and

William J. Campbell

**Ice Dynamics Project
US Geological Survey
University of Puget Sound
Tacoma, Washington 98416**

May 1985

PREFACE

During June/July 1984, the NASA CV-990 Airborne Laboratory was utilized in a mission to overfly the Fram Strait/East Greenland Sea marginal ice zone (MIZ) during the main summer marginal ice zone experiment (MIZEX '84). The eight data flights were coordinated where possible with overpasses of the Nimbus-7 satellite, and with measurement of sea ice, open ocean, and atmospheric properties at the surface. The surface research teams were based on seven research vessels, some with helicopters: M/V Kvitbjorn, M/V Polarqueen, M/S Haakon Mosby, and M/S H.U. Sverdrup, all from Norway, F/S Polarstern from the Federal Republic of Germany, and the USNS Lynch from the USA. There were also coordinated flights with the NRL P3, NOAA P3, Canadian CV580, and the French B-17 during the overlap portions of their respective missions. Analysis of the real-time data acquired during the mission and uncalibrated data stored on tape has served to indicate the mission was over 90% successful.

The purpose of these flights was to obtain data to understand better the physical ocean/ice/atmosphere interactions occurring in the marginal ice zone (MIZ) and to improve the algorithm for obtaining sea ice concentration and age from microwave data especially in the melt season. To this end, the aircraft was equipped with both imaging and fixed-beam, dual-polarized passive microwave radiometers operating at wavelengths ranging from 0.3 to 1.7 cm. Also on board were a chirped-pulse radar from UK operating at 13 GHz, metric cameras, and an infrared radiometer operating at 10.7 micrometers.

Following a general discussion of the operational plan and on-board instrumentation, each flight is described by a summary report, a flight log of aircraft position once a minute and all automatically entered flight comments made by visual observers and on-board investigators, plots of the aircraft tracks, and where available, preliminary microwave mosaics prepared on-board the CV-990 during the flights.

PRECEDING PAGE BLANK NOT FILMED

TABLE OF CONTENTS

Preface	iii
Table of Contents	v
1. Background	1
2. General Flight Plan	1-7
3. Individual Flight Reports	9-147
4. Concluding Remarks	149
5. Acknowledgements	149
6. Reference	149
Table 1. List of MIZEX '84 Flights	4
Table 2. Participants	5
Table 3. Visiting Observers	6
Table 4. List of Instruments	7
Figure 1. Flight Plans	2
Figure 2. Flight tracks: Ames/Thule 6/8	10-11
Figure 3. Flight tracks: Thule/Evenes 6/9	24
Figure 4. Mosaic pattern: 6/9.....	25
Figure 5. ESMR mosaic: 6/9	26
Figure 6. Flight tracks: Evenes RT 6/12	38
Figure 7. Mosaic pattern: 6/12	39
Figure 8. ESMR mosaic: 6/12	40
Figure 9. Flight tracks: Evenes RT 6/16	52
Figure 10. Mosaic pattern: 6/16	53
Figure 11. ESMR mosaic: 6/16	54
Figure 12. Flight tracks: Evenes RT 6/20	66
Figure 13. Mosaic pattern: 6/20	67
Figure 14. ESMR mosaic: 6/20	68
Figure 15. Flight tracks: Evenes RT 6/22	80
Figure 16. Mosaic pattern: 6/22	81
Figure 17. ESMR mosaic: 6/22	82
Figure 18. Flight tracks: Evenes RT 6/26	92
Figure 19. Mosaic pattern: 6/26	93
Figure 20. ESMR mosaic: 6/26	94
Figure 21. Flight tracks: Evenes RT 6/28	106

TABLE OF CONTENTS (Continued)

Figure 22. Survey pattern: 6/28.....	107
Figure 23. Flight tracks: Evenes RT 6/29	118
Figure 24. Mosaic pattern: 6/29	119
Figure 25. ESMR mosaic: 6/29	120
Figure 26. Flight tracks: Evenes/Sondre 7/1	132
Figure 27. Flight tracks: Sondre/Malstr 7/1	139
Figure 28. Flight tracks: Malstrom/Ames 7/2	147

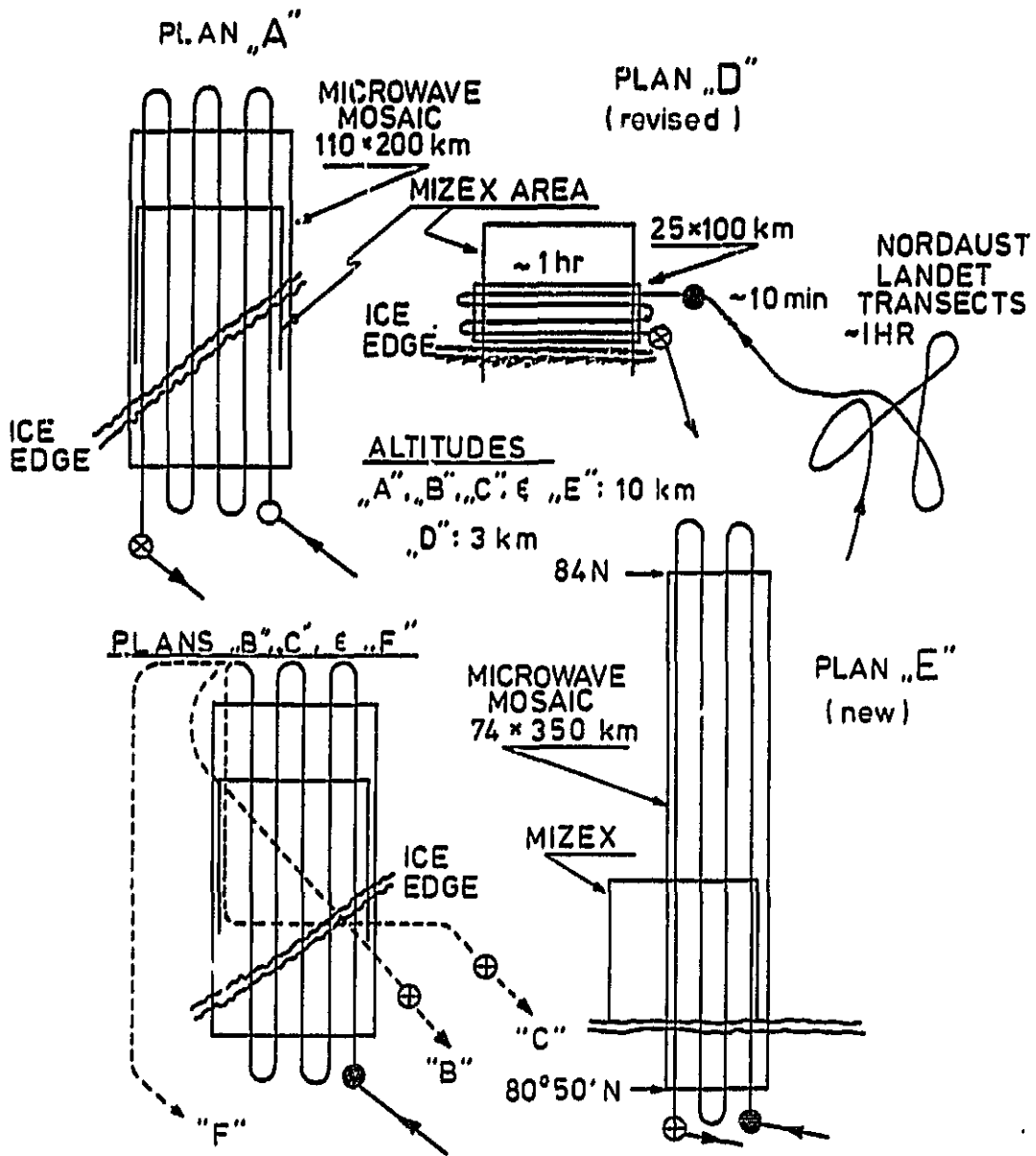
1. Background

This expedition of the NASA CV-990 airborne laboratory was carried out in accordance with the science plan for a summer marginal ice zone experiment in the Fram Strait/Greenland Sea (MIZEX '84) (Johannessen et al. 1983). Specifically, the objectives of this mission were: 1) to acquire mesoscale mosaics of multispectral microwave radiometric data from airborne imaging and fixed-beam instruments in the range 10.7 - 92 GHz over a drifting 200 Km square array during MIZEX '84 in such a way as to permit analysis of the data in terms of time-sequential maps of sea ice concentration, age, and surface temperature over the sea ice and near-surface winds over the open ocean within the array, 2) to distribute these flights over variations in the surface temperature below and at the melting point for the purpose of a detailed study of the problem of observed inaccuracies in sea ice concentrations from SMMR in the MIZ near that point, 3) to coordinate these flights with in-situ sea ice and oceanic data obtained by the international participants in MIZEX '84 on board the seven research vessels taking part in this experiment and with the Nimbus-7 SMMR overpasses, and 4) to coordinate the acquisition of the microwave mesoscale mosaics with that of high-resolution multispectral radar mosaics acquired by the NOAA P-3, the CCRS (Canadian Centre for Remote Sensing) Convair 580 and the CNES (French Space Agency) B-17 aircraft, and also the passive microwave data obtained with the USN/NRL P-3.

2. General Flight Plan

The original flight plan called for departure of the CV-990 from Ames Research Center on June 7 to permit obtaining the first MIZEX mosaic on June 8, 1984, in coordination with the SMMR overpass on that day. This plan had to be modified because of problems discovered with the landing gear at an intermediate stop (Malstrom AFB) on June 7. As a result, the CV-990 returned to Ames for emergency overnight repairs, and the mission began instead on June 8. In the middle of the schedule, another aircraft malfunction—loss of part of one of the spoilers on a wing during landing—caused an unscheduled down-time of six days and a subsequent compression of the remaining flight schedule. In spite of these difficulties, all of the scheduled eight data (see Table 1.) flights over the MIZEX area were successfully executed.

In order to facilitate coordination between the CV-990 and other aircraft involved in MIZEX '84 at the same time, a number of different flight patterns were designed before the mission, included in the Operations Plan, and labeled 'A' through 'F' (see Figure 1.). These plans were actually followed, with only an occasional minor modification. In the description of the individual flights to follow, the actual aircraft flight lines are shown in both an overall scale from base to base and in detail over the MIZEX test area. The navigational data acquired by the Airborne Digital Data Acquisition System (ADDAS), sampled once a minute, are shown for each flight along with all of the comments of the ice observers, mission managers, mission scientist, and instrument scientists that were logged into the ADDAS. A list of participants on this mission appears in Table 2. Finally, grey-scale renditions of the mosaics of the 19.35 GHz radiometric imager (ESMR) data acquired during each of the flight over the MIZEX areas are presented. Because of the practical limitation of the grey scale to ten steps, the radiance interval between steps is 15 K, about three times greater than the sensitivity of the ESMR.



NASA/CV-990

1984 SCHEDULE

Flights June	8	10	14	18	20	22	26	29
Flight Plan	"A"	"E"	"A"	"A"	"A/F"	"A/F"	"A/F"	"D"
Mosaic Alt.	10	10	10	10	10	10	10	3

Figure 1. Flight Plans

The scientific instrumentation on board (Table 3.) consisted of fixed-beam and scanning microwave radiometers in the wavelength range of 0.3 to 1.7 cm (92 to 18 GHz) from the Goddard Space Flight Center, a radar altimeter operating at 14 GHz from the Rutherford-Appleton Laboratories (RAL) (UK), and from the Ames Research Center, a precision albedo measuring system, a thermal infrared radiometer, and two cartographic cameras. For the most part, data from these instruments were acquired by the ADDAS as well as on their own data systems. As can be seen from the flight log, there were very few data gaps from any of the instruments. The most severe of these occurred on the June 9 Flight when the 92 GHz imager malfunctioned and could not be corrected during the flight because the cargo area where it was located was crammed with aircraft gear normally left behind at the base of operations. At this writing, it is estimated that better than 90% of the data desired were acquired.

During the course of the expedition, near real-time SMMR images of sea ice concentration and age were transmitted from Goddard via Telemail to the main base of operations at Tromso, Norway and to the CV-990 base at Evenes. The images were essential for optimization of the flight schedules in the field and optimal locations of the flight patterns over the MIZEX test area. Also, Telemail was utilized to transmit summary reports of each CV-990 flight to Tromso (and Goddard) as well as for receiving details of recommended flight plan revisions from Tromso. These summary reports are the primary basis for the flight summaries presented here.

Table 1. List of MIZEX '84 Flights

Flt#	Date	Day#	Flight Name	Base(s)	Purpose
1	6/02	154	----	Ames/Ames	Instrument check-out
2	6/05	157	----	Ames/Ames	Instrument check-out
3a	6/07	159	----	Ames/Malmstrom	Transit (aborted)
b	6/07	159	----	Malmstrom/Ames	Return for repairs
4a	6/08	160	Transit	Ames/Malmstrom	Refueling stop
b	6/08	160	Transit	Malmstrom/Thule	Temporary base
5	6/09	161	1st Data	Thule/Evenes	6-leg N/S mosaic
6	6/12	164	2nd Data	Evenes/Evenes	6-leg N/S mosaic
7	6/18	170	3rd Data	Evenes/Evenes	Long 4-leg N/S mosaic
8	6/22	174	4th Data	Evenes/Evenes	5-leg N/S mosaic, with low-level pass over leg 3
9	6/24	176	5th Data	Evenes/Evenes	6-leg N/S mosaic, with half the normal space between 5 & 6
10	6/26	178	6th Data	Evenes/Evenes	6-leg N/S mosaic
11	6/28	180	7th Data	Evenes/Evenes	Nordostlandet rosette; MIZEX edge transect
12	6/30	182	8th Data	Evenes/Evenes	5-leg E/W mosaic
13a	7/01	183	Transit	Evenes/Sondre	Refueling stop
b	7/01	183	Transit	Sondre/Malmstr.	Overnight rest stop
14	7/02	184	Transit	Malmstrom/Ames	Return to home base

Table 2. Participants

Function	Name	Organization
Aircraft Cmdr.	Fred J. Drinkwater	Ames Research Center
Aircraft Cmdr.	Robert C. Innis	Ames Research Center
Chief Pilot	James L. Martin	Ames Research Center
Chief Pilot	Paul M. Seabo	Ames Research Center
Flight Engineer	Frank P. Kosik	Ames Research Center
Flight Engineer	Wallace G. Stahl	Ames Research Center
Navigator	Eugene A. Moniz	Northrup
Mission Mgr	Donald L. Anderson	Ames Research Center
Asst Mission Mgr	John O. Reller, Jr.	Ames Research Center
Asst Mission Mgr	Robert D. Morris	Ames Research Center
Mission Scientist	Per Gloersen	Goddard Space Flight Center
Principal Inves.	Erik Mollo-Christensen	Goddard Space Flight Center
Ice Observer	William J. Campbell	USGS/Ice Dynamics Project
AMMR/ESMR/AMMS	Thomas T. Wilheit	Goddard Space Flight Center
AMMR/ESMR/AMMS	Lewis R. Dod	Goddard Space Flight Center
AMMR/ESMR/AMMS	Richard L. Kutz	Goddard Space Flight Center
AMMS	Joseph A. Gagliano	Georgia Tech.
AMMS	Thomas F. Stouffer	Georgia Tech.
ADDAS	Patricia G. Hathoway	Informatics
ADDAS	Susan D. Brooks	Northrup
ADDAS	Russell L. Burns	Informatics
Albedo Expt.	Anne B. Miller	Ames Research Center
Radar Altimeter	Redvers J. Powell	Rutherford-Appleton Labs
Radar Altimeter	Andree R. Birks	Rutherford-Appleton Labs
Radar Altimeter	W. John Bradford	Rutherford-Appleton Labs
Radar Altimeter	Charles L. Wrench	Rutherford-Appleton Labs
Radar Altimeter	Micheal R. Gorman	Scott-Polar Research Inst.
Radar Altimeter	Hugh D. Griffiths	U. College London
Radar Altimeter	Jean-Claud Morin	ESA
Radar Altimeter	Neil F. MacIntyre	Mullard SSL
Photography	Bernardo G. Pongeggi	Ames Research Center
Flight technician	Larry Parenti	Ames Research Center
Instrument tech.	Glen E. Frenzel	Ames Research Center
Gnd Cres Supervsr	Douglas J. McKinnon	Northrup
Inspector	Alfred A. Hill	Northrup
Ground Crew Chief	Steven G. Davis	Northrup
Ground Crew	Larry Kirkland	Northrup
A/C Mechanic	Michael Lakowski	Northrup

Table 3. Visiting Observers

Name	Organization
Robert A. Shuchman	ERIM (MIZEX Remote Sensing Co-Chairman)
Sylve Lilegren	Norsk Rikskringkastning Centrale (NRC)
Hanseric Vogter	NRC (Norwegian National Radio)
Arne Schei	NRC
Albert J. Fleig	GSFC (Project Scientist -- Nimbus-7)
Robert Majors	Norsk Teknisk Naturvitenskapelig Fors-
George W. Rosenberg	kningsraad (NTNF)
Lothar Beckel	ESA
John Conomos	USGS
Edward Joshberger	USGS
Duncan Ross	NOAA/SAIL/U. Miami
Bengt Benson	General, Swedish Air Force
F. Wickerts	Colonel, Swedish Air Force
Even Holt	Norsk Tekniske Hoegskole
Kenneth Morey	MIT
Charles Luther	ONR
Richard Francis	ESA

Table 4. List of Instruments

Sensor	P.I./Co-I.	Characteristics
ESMR	Tom Wilheit/GSFC Tom Dod/GSFC Dick Kutz/GSFC	Passive microwave imager Frequency: 19.35 GHz FOV: 1/20 radian Scan: +/- 50°
AMMR	Tom Wilheit/GSFC Tom Dod/GSFC Dick Kutz/GSFC	Fixed-beam microwave radiometers Frequencies: 18, 21, 37 GHz FOV: 1/7 radian Look angles: 45°R Polarization: H & V
Sky Radiometer	Tom Wilheit Tom Dod Dick Kutz	Fixed-beam microwave radiometers Frequencies: 21 & 37 GHz FOV: 1/7 radian Look angle: ca. 10° from zenith
AMMS	Tom Wilheit/GSFC Joe Gagliano/Georgia T.	Passive microwave imager Frequency: 92 GHz FOV: 1/30 radian Scan: +/- 45°
Radar Altim.	John Powell/RAL	Altimeter/Scatterometer Frequency: 13.7 GHz
Albedo Expt.	Francisco Valero/ARC Ann Miller/ARC	Solar Radiometer Wavelengths: 0.26-2.6 microns FOV: hemispherical (up/down)
PRT-5	John Reller/ARC	Thermal infrared radiometer Wavelength: 10.7 micrometers Nadir-viewing
KS-87B's	Dino Pongeggi/ARC	Cartographic Cameras 8-inch film format nadir- & 45°R-viewing

3.0 Individual Flight Reports

3.1 Transmit Flight—day 160—Ames to Thule

This flight was one day later than planned due to a landing gear strut problem on the aircraft. Some sea ice data were obtained over Hudson Bay, Foxe Basin, and part of Baffin Bay. Unfortunately, the ADDAS failed at the crucial time for using the data as calibrations for the GSFC instruments. However, excellent conditions for useful albedo measurements were obtained—both high and low level.

ORIGINAL PAGE IS
OF POOR QUALITY

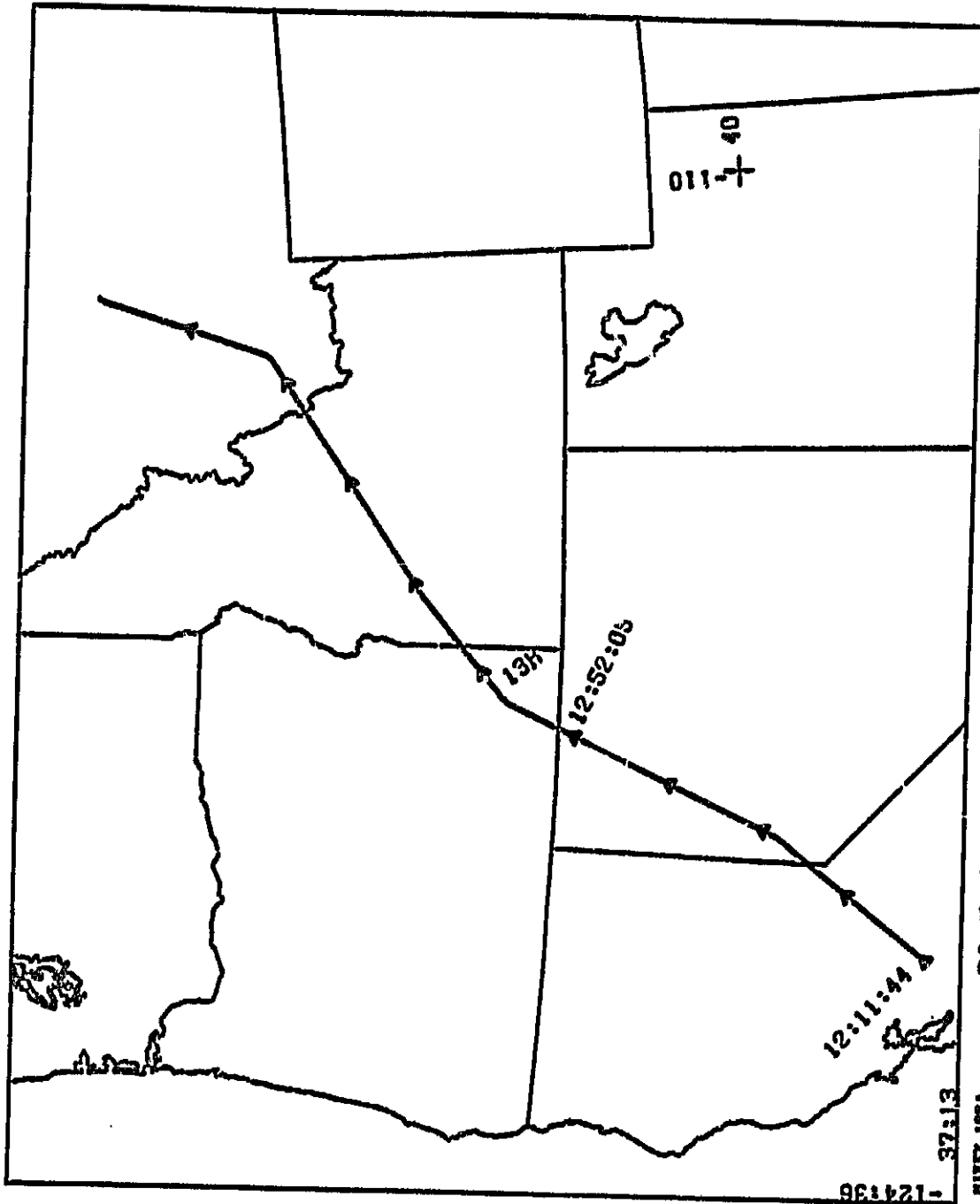
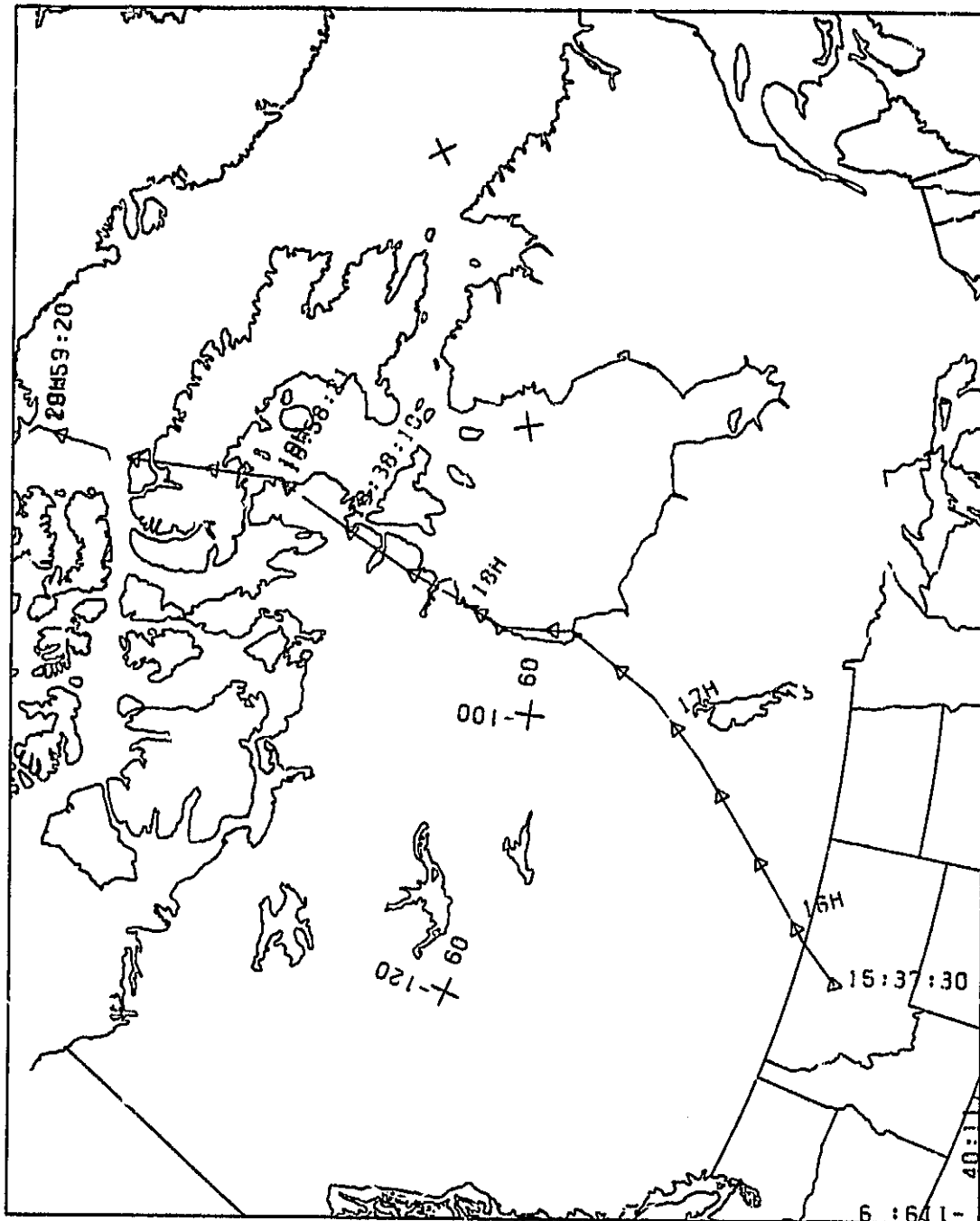


Figure 2. Flight tracks: Ames/Thule 6/8

ORIGINAL PAGE IS
OF POOR QUALITY



MIZEX '94
15:37:19 TO 20:19:37 UT
FLT #46 JUNE 9, 1994 HELMSTROM TO THULE
SCALE = 1:1.79E+07
TIME TICS EVERY 30.00 MINUTES

Figure 2. Flight tracks: Ames/Thule 6/8 (Continued)

ORIGINAL PAGE IS
OF POOR QUALITY

YEAR	1984	ADDAS	FLIGHT LOG	FLIGHT NO.	GRID TRUE	MIND	WIZEX	IR	ROLL	PITCH	IR	IR
TIME	LAT	LONG	DIR	SPD	DIR	PRES	ADAR	DIR	PITCH	ROLL	IR	IR
160/11:56:05	00	00	00	00	00	000	000	000	000	000	000	000
160/11:57:01	37	24.8	122	02.9	0014	157.6	104	157134853	75	-0.7	-1.4	29.3
160/11:58:01	37	24.6	122	02.7	0014	156.8	103	157134870	73	-0.5	-1.3	25.4
160/11:59:01	37	24.4	122	02.5	0015	156.8	116	156114088	74	-0.7	-1.4	21.9
160/12:00:01	37	24.4	122	02.5	0015	156.8	116	156114088	74	-0.6	-0.4	10.5
160/12:01:01	37	26.0	122	03.3	0177	349.1	010	040	934	19.2	15.0	16.7
160/12:02:01	37	27.0	122	03.8	0235	096.3	019	299	2407	6.6	4.3	9.2
160/12:03:01	37	27.6	121	03.4	0278	014	361	4331	4555	8.5	-0.2	8.6
160/12:04:01	37	23.9	121	03.0	0301	139.0	015	316	6533	6.5	-0.1	9.2
160/12:05:01	37	19.9	121	04.6	0318	139.8	026	311	8694	6.8	-1.3	6.4
160/12:06:01	37	18.3	121	03.4	0303	003.8	041	327	8939	7.0	28.0	7.3
160/12:07:01	37	18.0	121	03.9	0306	072.4	045	318	10316	6.9	-28.1	5.6
160/12:08:01	37	18.6	121	04.2	0302	059.2	045	318	10274	6.3	-28.0	7.2
160/12:09:01	37	18.6	121	04.1	0300	050.2	049	315	10360	5.8	-28.2	5.8
160/12:10:01	37	19.1	121	04.0	0297	037.6	043	312	10502	4.2	-19.3	5.7
160/12:11:01	37	19.5	121	04.0	0304	025.7	042	310	10639	3.7	-7.4	7.0
160/12:12:01	37	21.3	121	03.1	0319	021.0	043	312	10837	3.4	-0.3	5.0
160/12:13:01	37	22.9	121	03.1	0334	021.5	043	311	11091	3.7	3.3	5.2
160/12:14:01	37	23.6	121	03.5	0343	022.8	045	312	11276	3.7	3.4	4.9
160/12:15:01	37	24.1	121	03.3	0355	023.3	044	310	11355	3.9	3.7	4.9
160/12:16:01	37	25.0	121	03.9	0358	025.1	044	309	11429	3.7	3.2	4.2
160/12:17:01	37	26.0	121	03.9	0358	026.4	047	309	11517	4.1	3.2	7.3
160/12:18:01	37	26.4	121	03.5	0360	026.9	047	307	12477	4.1	1.0	6.8
160/12:19:01	37	26.4	121	03.3	0365	027.5	048	306	12449	4.2	1.3	6.0
160/12:20:01	37	28.7	121	03.4	0369	027.6	049	306	12766	4.1	0.8	6.2
160/12:21:01	37	33.8	121	03.8	0381	027.4	052	305	14455	4.3	0.4	10.2
160/12:22:01	37	38.8	121	04.1	0385	026.4	060	307	16326	4.4	0.7	12.3
160/12:23:01	37	44.2	121	04.9	0396	025.3	065	303	18092	4.2	0.4	10.3
160/12:24:01	37	49.7	121	04.6	0398	023.3	073	305	19755	5.9	0.0	9.0
160/12:25:01	37	55.0	121	04.6	0403	025.3	072	300	21243	4.1	0.3	7.2
160/12:26:01	37	07.1	120	04.0	0410	024.4	076	301	22449	3.6	0.6	6.7
160/12:27:01	38	06.1	120	04.5	0411	023.6	088	307	24195	4.0	0.4	9.2
160/12:28:01	38	11.7	120	04.8	0412	023.2	092	312	25705	3.5	0.3	8.0
160/12:29:01	38	17.5	120	04.3	0412	021.7	109	315	27094	3.7	0.4	7.1
160/12:30:01	38	22.9	120	04.4	0407	020.4	120	317	28540	3.8	0.3	4.9
160/12:31:01	38	28.4	120	04.9	0408	019.7	134	315	29750	3.3	0.0	6.2
160/12:32:01	38	34.0	120	04.0	0408	018.7	134	315	30693	3.2	0.0	2.1
160/12:33:01	38	39.9	120	03.7	0410	018.3	135	316	31578	3.2	0.2	1.5
160/12:34:01	38	44.9	120	03.7	0412	017.3	134	316	32440	3.1	0.1	0.5
160/12:35:01	38	50.6	120	03.4	0418	018.6	134	314	32964	2.1	-0.5	-1.6
160/12:36:01	38	56.3	120	03.4	0422	019.8	127	312	32953	2.2	-0.2	-0.2
160/12:37:01	39	02.0	120	03.0	0426	020.4	125	313	32860	2.0	0.5	-2.1
160/12:38:01	39	07.7	120	02.7	0426	020.5	125	314	32962	2.1	0.5	6.3
160/12:39:01	39	13.5	119	03.7	0426	020.6	126	316	32965	1.9	0.4	8.3
160/12:40:01	39	19.1	119	03.7	0425	020.9	125	315	32960	2.2	0.2	-6.0
160/12:41:01	39	25.0	119	04.3	0425	020.9	125	315	32961	2.1	0.4	-0.5
160/12:42:01	39	30.8	119	04.8	0425	020.9	126	316	32961	2.1	0.2	-0.1
160/12:43:01	39	36.6	119	04.6	0407	018.7	123	314	32964	2.0	-7.7	0.3
160/12:44:01	39	42.5	119	03.4	0398	009.3	123	316	32955	2.1	-0.6	-0.6
160/12:45:01	39	48.5	119	03.0	0394	003.9	121	315	32958	2.2	0.3	1.5
160/12:46:01	39	54.5	119	03.0	0395	009.1	121	315	32966	2.1	0.5	-2.9
160/12:47:01	39	54.6	119	02.6	0396	009.0	119	314	32956	2.3	0.5	-1.1
160/12:48:01	40	00.8	119	03.1	0398	009.1	118	312	32952	2.1	0.4	-5.1
160/12:49:01	40	06.9	119	03.7	0402	009.5	114	312	32947	2.3	0.3	5.3
160/12:50:01	40	12.9	119	04.2	0406	007.8	111	311	32952	2.2	0.4	-1.7
160/12:51:01	40	18.5	119	04.5	0407	010.7	109	313	32951	2.2	0.4	-1.6
160/12:52:01	40	24.2	119	04.8	0402	010.7	109	313	32951	2.2	0.2	-3.7
160/12:53:01	40	30.1	119	05.4	0415	011.1	106	313	32954	1.9	0.5	-2.6

ORIGINAL PAGE IS
OF POOR QUALITY

YEAR 1964 ADDAS FLIGHT LOG										
TIME	LAT	LON	FLIGHT NO.	GRD TRUE	HDG	MIXEN	ALTITUDE		TEMP	
							DIR	PRES		IR
							SPD	RADAR	PITCH	COLL
160/12:41:01	00 39 2-119	01 0	0415	012.7	030	32868	27884	1.9	0.7	2.2 -45.9
160/12:42:01	00 40 4-118	01 0	0415	012.7	030	32868	28271	2.1	0.2	-6.7 -45.1
160/12:43:01	00 40 50-118	01 0	0415	012.7	030	32868	28507	2.1	0.2	-2.4 -45.5
160/12:44:00	00 40 50-118	01 0	0420	013.0	033	32964	29016	2.1	0.1	0.4 -49.4
160/12:45:00	00 41 03.4-118	01 0	0421	013.7	032	32963	28951	2.2	0.2	-1.6 -47.7
160/12:46:00	00 41 09.8-118	01 0	0422	014.6	031	32959	28919	2.0	0.2	-1.6 -46.1
160/12:47:00	00 41 16.4-118	01 0	0422	014.8	031	32953	28900	1.9	0.4	-1.0 -48.2
160/12:48:00	00 41 22.9-118	01 0	0423	015.9	029	32943	28839	2.0	0.5	-0.1 -47.3
160/12:49:00	00 41 29.3-118	01 0	0423	016.2	027	32938	28770	2.1	0.4	-6.4 -46.9
160/12:50:00	00 41 35.9-118	01 0	0423	016.8	026	32937	28715	1.7	0.7	-2.8 -47.7
160/12:51:00	00 41 42.5-118	01 0	0423	017.6	025	32936	27647	1.7	0.6	-2.7 -47.4
160/12:52:00	00 41 49.1-118	01 0	0423	018.4	024	32934	27577	1.7	0.7	-6.7 -49.5
160/12:53:00	00 41 55.8-118	01 0	0423	019.4	023	32932	27507	1.7	0.7	-8.4 -49.2
160/12:54:00	00 42 02.5-118	01 0	0423	019.4	022	32931	26550	2.0	0.4	-4.4 -47.9
160/12:55:00	00 42 09.1-118	01 0	0423	019.6	021	32932	26558	2.2	0.4	-2.9 -49.0
160/12:56:00	00 42 15.9-118	01 0	0423	019.5	021	32933	26630	2.2	0.2	-6.1 -47.4
160/12:57:00	00 42 22.5-117	01 0	0421	019.1	021	32950	27533	1.8	0.3	-10.5 -49.7
160/12:58:00	00 42 29.2-117	01 0	0421	019.7	020	32955	28469	2.4	0.3	-8.1 -51.4
160/12:59:00	00 42 35.9-117	01 0	0421	020.4	019	32966	28615	2.7	10.4	-11.5 -51.7
160/13:00:00	00 42 41.1-117	01 0	0421	021.1	018	32978	28875	1.7	1.1	-9.3 -50.2
160/13:01:00	00 42 45.6-117	01 0	0421	021.7	018	32979	28692	2.1	0.0	-1.1 -51.7
160/13:02:00	00 42 50.1-117	01 0	0421	022.4	017	32978	28575	2.3	-0.1	-0.2 -50.6
160/13:03:00	00 42 54.6-117	01 0	0421	023.1	017	32977	28457	1.7	0.0	-0.1 -50.2
160/13:04:00	00 42 59.1-117	01 0	0421	023.8	016	32976	28340	2.0	0.2	-3.8 -49.3
160/13:05:00	00 43 03.6-117	01 0	0421	024.5	015	32975	28223	2.5	0.3	-1.2 -49.8
160/13:06:00	00 43 08.1-116	01 0	0421	025.2	014	32974	28106	2.2	0.2	-1.8 -51.1
160/13:07:00	00 43 12.6-116	01 0	0421	025.9	013	32973	27989	2.2	-0.7	-1.4 -50.0
160/13:08:00	00 43 17.1-116	01 0	0421	026.6	012	32972	27872	2.2	0.0	4.2 -52.7
160/13:09:00	00 43 21.6-116	01 0	0421	027.3	011	32971	27755	2.3	0.1	2.1 -51.4
160/13:10:00	00 43 26.1-116	01 0	0421	028.0	010	32970	27638	2.1	0.0	-1.1 -51.7
160/13:11:00	00 43 30.6-116	01 0	0421	028.7	009	32969	27521	2.2	0.2	2.6 -49.9
160/13:12:00	00 43 35.1-116	01 0	0421	029.4	008	32968	27404	2.2	0.2	2.0 -50.6
160/13:13:00	00 43 39.6-116	01 0	0421	030.1	007	32967	27287	2.1	0.2	-1.7 -50.6
160/13:14:00	00 43 44.1-116	01 0	0421	030.8	006	32966	27170	2.0	0.2	-0.3 -50.8
160/13:15:00	00 43 48.6-116	01 0	0421	031.5	005	32965	27053	1.8	0.0	-4.6 -53.8
160/13:16:00	00 43 53.1-115	01 0	0421	032.2	004	32964	26936	1.7	0.1	-9.3 -51.6
160/13:17:00	00 43 57.6-115	01 0	0421	032.9	003	32963	26819	1.6	0.4	-12.3 -52.7
160/13:18:00	00 44 02.1-115	01 0	0421	033.6	002	32962	26702	1.6	0.4	-16.3 -49.5
160/13:19:00	00 44 06.6-115	01 0	0421	034.3	001	32961	26585	1.6	0.2	-12.5 -50.0
160/13:20:00	00 44 11.1-115	01 0	0421	035.0	000	32960	26468	1.7	-0.1	-15.3 -51.1
160/13:21:00	00 44 15.6-115	01 0	0421	035.7	000	32959	26351	1.6	0.8	-16.0 -52.3
160/13:22:00	00 44 20.1-115	01 0	0421	036.4	000	32958	26234	1.8	0.2	-17.0 -49.3
160/13:23:00	00 44 24.6-115	01 0	0421	037.1	000	32957	26117	1.8	0.0	-16.0 -50.5
160/13:24:00	00 44 29.1-115	01 0	0421	037.8	000	32956	26000	1.8	0.5	-15.0 -50.7
160/13:25:00	00 44 33.6-115	01 0	0421	038.5	000	32955	25883	1.8	0.8	-13.0 -50.7
160/13:26:00	00 44 38.1-115	01 0	0421	039.2	000	32954	25766	1.9	0.3	-10.4 -50.7
160/13:27:00	00 44 42.6-115	01 0	0421	039.9	000	32953	25649	1.9	0.3	-15.1 -53.0
160/13:28:00	00 44 47.1-115	01 0	0421	040.6	000	32952	25532	1.9	0.5	-12.7 -49.7
160/13:29:00	00 44 51.6-115	01 0	0421	041.3	000	32951	25415	1.7	0.2	-13.1 -50.3
160/13:30:00	00 44 56.1-115	01 0	0421	042.0	000	32950	25298	1.7	0.2	-13.1 -50.3
160/13:31:00	00 45 00.6-115	01 0	0421	042.7	000	32949	25181	1.7	0.4	-5.0 -52.7
160/13:32:00	00 45 05.1-115	01 0	0421	043.4	000	32948	25064	1.6	0.5	-7.3 -52.1
160/13:33:00	00 45 09.6-115	01 0	0421	044.1	000	32947	24947	1.6	0.3	-18.0 -52.1
160/13:34:00	00 45 14.1-115	01 0	0421	044.8	000	32946	24830	1.7	-0.3	-3.1 -52.5
160/13:35:00	00 45 18.6-115	01 0	0421	045.5	000	32945	24713	1.6	0.1	-7.6 -51.7
160/13:36:00	00 45 23.1-115	01 0	0421	046.2	000	32944	24596	1.6	0.2	-1.1 -51.6
160/13:37:00	00 45 27.6-115	01 0	0421	046.9	000	32943	24479	1.6	0.8	-3.3 -50.4
160/13:38:00	00 45 32.1-115	01 0	0421	047.6	000	32942	24362	1.9	0.2	-5.0 -50.6
160/13:39:00	00 45 36.6-115	01 0	0421	048.3	000	32941	24245	1.8	0.1	5.7 -51.9

YEAR 1984	AUDAS FLIGHT LOGS	FLIGHT NO.	CRD TRU	MOZEX	ALTIMETER	TEMP	IR	AIR			
TIME	LAT	LONG	SPD	DIR	PRES	RADAR	PITCH	ROLL			
160/13:40:00	45 49.6-112 15.9	0459	018.6	031	231	2670	27625	2.0	0.2	5.9	-50.1
160/13:41:00	45 49.6-112 15.9	0457	018.6	032	249	2695	27477	1.7	0.4	5.4	-50.4
160/13:42:00	45 49.6-112 15.9	0457	018.6	032	249	2695	27477	1.7	0.4	4.5	-50.6
160/13:43:00	46 07.9-112 05.3	0460	019.0	034	275	23163	25076	-1.9	-0.2	0.9	-57.5
160/13:45:00	46 10.3-112 05.0	0446	019.9	037	159	21332	24685	-2.4	0.5	-10.3	-51.9
160/13:46:00	46 17.6-112 01.3	0456	019.5	034	165	20774	22280	-0.2	0.4	-10.7	-48.9
160/13:45:00	46 24.5-111 57.8	0435	019.4	032	183	26423	21199	-2.4	0.5	-9.0	-42.6
160/13:45:00	46 31.2-111 54.4	0422	019.7	032	183	23891	18250	-2.7	0.7	5.0	-36.1
160/13:47:00	46 37.9-111 50.9	0413	019.3	030	221	21259	17237	-2.4	-0.1	-7.9	-30.2
160/13:48:00	46 44.2-111 47.5	0401	019.2	033	224	18823	14070	-1.6	0.5	-1.6	-23.5
160/13:48:52	46 49.6-111 44.9	0389	017.4	037	260	16832	10196	-2.4	0.7	-6.0	-18.1
160/13:49:00	46 49.6-111 44.9	0389	017.4	037	260	16832	10196	-2.4	0.7	-6.0	-18.1
160/13:50:00	46 52.2-111 41.3	0371	017.9	033	243	18132	9123	-1.8	0.4	-1.9	-19.8
160/13:51:00	47 02.1-111 38.1	0352	017.2	034	241	18725	7677	-1.2	1.1	8.3	-10.0
160/13:52:00	47 06.9-111 35.9	0334	036.5	033	309	11267	6835	-0.3	-0.1	9.5	-5.6
160/13:53:00	47 11.1-111 28.7	0308	038.4	012	325	10193	6080	1.2	-0.5	9.6	-5.6
160/13:54:00	47 14.6-111 26.1	0271	037.6	016	339	9674	6190	2.0	0.8	19.1	-6.2
160/13:55:00	47 17.8-111 19.9	0250	037.9	003	355	8978	4820	0.2	-0.4	12.0	-4.0
160/13:55:00	47 21.1-111 16.1	0243	036.2	020	286	7356	3293	-0.3	0.5	11.4	0.7
160/13:57:00	47 23.9-111 11.8	0254	039.6	026	266	5756	2082	0.5	-0.3	12.1	2.8
160/13:57:26	47 25.1-111 10.2	0251	040.1	024	259	5609	2344	3.1	-0.3	10.4	4.7
160/13:58:00	47 26.8-111 07.7	0238	037.2	023	259	5197	1800	3.9	-0.3	11.3	2.8
160/14:00:00	47 28.1-111 06.1	0229	036.9	022	239	4471	1351	1.1	-1.0	12.2	8.2
160/14:01:00	47 32.6-111 09.4	0191	047.4	022	229	3925	435	2.3	-8.9	13.0	7.6

STARTING CLR DESCEND.

NAOIR 3 CAMERA ON AT 13 40 00.

4.7 13 57 00 CAMERA OFF.

YEAR 1984 ADDRESS FLIGHT LOG --- FLIGHT NO. --- ALTITUDE --- HIZEK
 --- TIME --- --LAT-- --LONG-- --- GRID --- SPD DIR PRES RADAR PITCH ROLL IR ---TEMP--- AIR

YEAR	TIME	LAT	LONG	FLIGHT NO.	GRID	SPD	DIR	PRES	RADAR	PITCH	ROLL	IR	TEMP AIR
160/16:05:01	50	03.8-108	04.2	0457	046.0	011	092	32940	30014	2.6	0.2	-3.8	-50.9
160/16:06:01	50	08.9-107	05.2	0465	047.2	012	102	32959	30074	2.5	0.0	-5.1	-51.1
160/16:07:01	50	16.3-107	07.0	0467	047.9	015	132	32952	30179	2.4	0.3	-5.4	-51.3
160/16:08:01	50	20.0-107	08.1	0472	047.5	023	148	32951	30150	2.5	0.2	-1.6	-50.2
160/16:09:01	50	25.4-107	09.0	0476	049.0	030	147	32952	30171	2.5	-0.1	-4.6	-50.4
160/16:10:01	50	30.9-107	23.5	0480	050.2	039	150	32946	30302	2.6	0.1	-0.1	-51.0
160/16:11:01	50	36.8-107	02.5	0481	051.3	048	149	32946	30283	2.6	0.4	-10.5	-51.9
160/16:12:01	50	42.5-107	02.6	0481	052.3	055	150	32949	30440	2.6	0.2	-3.3	-51.7
160/16:13:01	50	47.8-106	53.7	0483	052.5	057	150	32945	30754	2.4	0.1	4.2	-51.0
160/16:14:01	50	53.6-106	44.3	0484	052.8	058	151	32951	30649	2.3	0.1	4.5	-51.0
160/16:15:01	50	59.1-106	55.2	0485	053.0	058	154	32926	30864	2.5	0.2	1.7	-51.7
160/16:16:01	51	04.7-106	04.0	0486	053.1	060	155	32945	30917	2.5	0.0	-2.6	-51.4
160/16:17:01	51	10.2-106	07.8	0486	053.2	060	149	32949	30855	2.3	0.4	-2.6	-51.1
160/16:18:01	51	15.8-106	09.5	0485	053.2	064	144	32950	30757	2.3	-0.1	-4.8	-50.7
160/16:19:01	51	21.3-105	50.0	0477	053.2	056	144	32957	30818	2.3	0.0	-2.6	-50.8
160/16:20:01	51	26.7-105	48.8	0475	053.1	054	144	32939	30759	2.4	0.4	-8.8	-51.7
160/16:21:01	51	32.2-105	49.6	0472	052.9	050	146	32925	30772	2.4	0.4	-12.1	-52.4
160/16:22:01	51	37.6-105	50.5	0470	053.2	050	148	32947	31076	2.5	-0.3	-13.0	-51.3
160/16:23:01	51	43.0-105	21.0	0472	052.9	048	149	32934	31173	2.7	0.3	-11.5	-51.6
160/16:24:01	51	48.4-105	11.7	0473	052.9	047	150	32957	31193	2.5	-0.3	-11.7	-52.5
160/16:25:01	51	53.7-105	02.5	0476	053.0	048	153	32942	31107	2.5	-0.1	-9.6	-49.3
160/16:26:01	51	59.2-104	22.4	0477	052.8	048	154	32940	31150	2.4	0.4	-1.0	-48.0
160/16:27:01	51	04.9-104	22.4	0479	052.8	048	152	32945	31351	2.4	0.1	-1.2	-49.8
160/16:28:01	51	10.4-104	23.9	0484	052.8	048	158	32950	31147	2.2	0.4	-9.6	-51.8
160/16:29:01	51	15.5-104	23.9	0485	052.8	048	155	32938	31046	2.3	0.3	-7.0	-50.7
160/16:30:01	52	20.9-104	14.3	0485	052.2	038	158	32938	31046	2.2	0.4	-5.1	-51.0
160/16:31:01	52	26.1-104	04.5	0485	052.0	035	159	32942	31070	2.3	-0.1	-3.7	-52.0
160/16:32:01	52	31.6-103	54.4	0484	052.0	034	162	32933	31111	2.2	-0.2	-4.1	-51.8
160/16:33:01	52	36.9-103	44.8	0483	052.1	034	162	32933	31116	2.4	-0.4	-1.1	-50.0
160/16:34:01	52	42.3-103	34.9	0483	052.1	029	162	32945	31245	2.3	0.4	-1.4	-50.6
160/16:35:01	52	47.7-103	24.8	0483	051.7	029	162	32945	31433	2.5	-0.1	-3.9	-52.0
160/16:36:01	52	53.1-102	04.6	0483	051.9	030	168	32938	31437	2.5	-0.1	-3.1	-51.7
160/16:37:01	52	58.5-102	04.9	0485	051.6	029	172	32945	31351	2.4	0.4	-1.0	-48.0
160/16:38:01	52	04.2-102	04.6	0485	051.6	026	177	32952	31348	2.4	0.1	-1.2	-49.8
160/16:39:01	53	08.9-102	04.5	0485	051.2	024	184	32946	31036	2.2	0.4	-1.4	-49.6
160/16:40:01	53	14.2-102	34.6	0485	051.2	022	184	32934	31106	2.4	0.2	-1.4	-49.3
160/16:41:01	53	19.6-102	23.9	0485	051.1	023	194	32949	30561	2.4	-0.2	-1.4	-51.4
160/16:42:01	53	24.7-102	13.9	0488	050.9	024	194	32946	30864	2.3	0.2	-1.2	-49.5
160/16:43:01	53	30.0-102	03.6	0489	051.0	025	203	32937	32154	2.4	0.0	-0.0	-49.3
160/16:44:01	53	35.3-101	56.3	0490	051.0	026	205	32939	32180	2.4	0.2	-0.4	-49.7
160/16:45:01	53	40.6-101	46.2	0491	051.1	026	208	32938	32191	2.6	0.3	-0.5	-49.3
160/16:46:01	53	45.9-101	36.2	0491	051.1	027	211	32945	32205	2.4	0.4	-0.7	-49.0
160/16:47:01	53	51.2-101	26.1	0491	051.1	027	211	32945	32205	2.4	0.4	-0.7	-49.0
160/16:48:01	53	56.5-101	10.2	0500	050.5	028	227	32952	32377	2.4	-0.1	1.8	-48.8
160/16:49:01	54	01.2-100	59.9	0502	049.9	031	233	32941	32230	2.3	-0.8	-0.1	-50.6
160/16:50:01	54	06.5-100	49.6	0504	049.8	034	234	32937	32260	2.3	-0.1	-0.5	-48.0
160/16:51:01	54	11.8-100	39.7	0506	049.9	031	238	32946	32204	2.2	0.1	-0.4	-48.9
160/16:52:01	54	17.1-100	29.6	0507	049.8	033	239	32933	32089	2.2	-0.2	-0.8	-48.0
160/16:53:01	54	22.4-100	19.3	0508	049.5	035	242	32944	32245	2.2	-0.1	1.1	-47.5
160/16:54:01	54	27.7-100	09.1	0510	049.3	037	245	32928	32089	2.3	0.4	-0.9	-48.0
160/16:55:01	54	33.0-100	58.8	0518	049.2	042	259	32944	32114	2.3	0.0	-0.9	-48.2
160/16:56:01	54	38.3-100	48.2	0517	049.2	042	268	32955	32235	2.2	-0.2	-4.7	-48.5
160/16:57:01	54	43.6-100	37.9	0516	049.2	042	261	32922	32136	2.2	-0.1	-4.2	-48.5
160/16:58:01	54	48.9-100	27.4	0515	049.2	042	266	32937	32247	2.4	0.3	-5.7	-49.2
160/16:59:01	55	01.6-099	16.3	0505	049.2	046	267	32948	32137	2.2	0.1	-5.0	-49.2
160/17:00:01	55	07.0-099	06.2	0507	049.2	049	265	32935	32154	2.3	0.0	-6.4	-49.2
160/17:01:01	55	12.3-099	06.8	0509	049.0	051	259	32927	32180	2.4	-0.2	-5.2	-49.9
160/17:02:01	55	17.6-099	06.8	0510	048.9	051	259	32927	32180	2.4	-0.2	-5.6	-50.5
160/17:03:01	55	22.9-099	34.1	0510	048.9	043	266	32926	32036	2.1	0.1	-5.0	-50.2

PHOTO - TOTAL CLOUD UNDER THE AIRCRAFT. NO PHOTO AT THIS TIME ADDRESS CHECK AREA

YEAR 1954 ACDAS FLIGHT LOG --- FLIGHT NO. 4 --- MIKEY
 TIME ---LAT---LONG---SPD HEAD---SPD DRG---ALT FT---PRES RADAR---PITCH RADAR---TEMP---IR AIR
 160/19:03:00 68 51.4-081 11.1 0474 016.8 010 115 31001 29787 1.7 -2.5 -9.6 -41.9
 160/19:03:05 68 51.4-081 11.1 0474 016.6 010 109 31003 29825 1.5 -2.3 -9.2 -42.0
 160/19:03:10 68 52.0-081 10.3 0474 016.0 011 105 30996 29775 1.7 -1.0 -8.4 -40.8
 160/19:03:20 68 53.0-081 09.4 0475 015.7 011 105 30993 29787 1.5 -0.3 -10.9 -41.0
 160/19:03:44 68 57.0-081 07.1 0475 015.9 011 100 30955 29786 1.6 0.5 -11.1 -41.9
 160/19:03:56 68 58.4-081 06.1 0475 016.1 011 100 30993 29784 1.6 0.5 -12.1 -39.6
 160/19:04:12 68 59.0-081 05.6 0475 016.3 011 100 30994 29799 1.6 0.4 -12.5 -41.3
 160/19:04:28 68 59.4-081 05.0 0475 016.4 011 101 30992 29783 1.7 0.1 -14.9 -42.5
 160/19:04:58 69 01.4-081 03.6 0476 016.8 018 099 30953 29783 1.7 0.2 -13.3 -42.3
 160/19:05:00 69 01.4-081 03.0 0476 016.6 018 099 30953 29783 1.7 0.2 -13.3 -42.3
 160/19:05:18 69 08.8-080 59.2 0476 016.7 018 100 30990 29775 1.7 -0.1 -12.9 -41.9
 160/19:05:35 69 11.1-080 56.4 0477 016.0 013 107 30999 29791 1.6 0.1 -12.9 -41.9
 160/19:05:48 69 12.7-080 55.3 0477 016.9 013 107 31000 29795 1.6 -0.1 -10.9 -41.8
 160/19:05:52 69 14.2-080 54.0 0477 017.1 015 108 30997 29781 1.5 0.2 -12.9 -40.7
 160/19:05:56 69 17.6-080 51.4 0477 017.6 016 101 30993 29791 1.5 0.5 -12.8 -41.6
 160/19:07:00 69 21.7-080 48.0 0475 017.6 016 105 30992 29792 1.6 -0.6 -12.9 -43.4
 160/19:07:18 69 23.1-080 48.1 0475 017.4 017 106 30997 29796 1.7 0.1 -16.3 -42.4
 160/19:07:33 69 24.3-080 48.1 0475 017.4 019 109 30991 29794 1.9 0.1 -10.1 -43.4
 160/19:07:58 69 28.7-080 48.1 0473 017.9 017 112 30933 29769 1.7 -0.1 -16.3 -42.8
 160/19:08:00 69 29.2-080 48.0 0473 017.7 017 112 30933 29769 1.7 -0.1 -16.3 -42.8
 160/19:08:24 69 32.6-080 39.5 0472 017.8 018 112 30934 29783 1.7 0.2 -13.0 -42.9
 160/19:08:30 69 33.2-080 39.1 0472 017.8 018 109 30931 29783 1.6 0.2 -11.4 -42.9
 160/19:08:38 69 00.0-080 00.0 0400 000.0 000 000 30938 29793 1.8 -0.3 -1.0 -43.0
 160/19:08:51 69 42.0-080 32.0 0467 017.9 019 104 30939 29775 1.8 0.2 -1.9 -41.5
 160/19:09:51 69 45.4-080 30.0 0467 018.0 019 107 30939 29781 1.8 0.4 -3.2 -41.4
 160/19:10:01 69 46.0-080 30.0 0466 018.1 019 104 30934 29783 1.8 0.0 -3.7 -42.4
 160/19:10:08 69 45.0-080 32.9 0465 018.2 019 107 30937 29783 1.8 0.2 -3.5 -43.1
 160/19:11:01 69 50.1-080 28.0 0463 018.6 023 113 30933 29781 1.9 0.1 -2.2 -43.3
 160/19:11:11 69 53.1-080 22.3 0463 018.8 023 113 30933 29781 2.2 0.1 -2.4 -44.9
 160/19:11:17 69 55.9-080 17.8 0463 019.3 025 113 30992 29371 1.9 0.1 -11.0 -44.4
 160/19:11:59 69 59.4-080 17.8 0463 019.3 025 112 30991 29383 1.9 -0.1 -10.7 -43.9
 160/19:12:01 69 59.4-080 17.8 0463 019.3 025 112 30991 29383 1.9 -0.1 -10.7 -43.9
 160/19:12:59 70 06.6-080 11.6 0464 019.6 027 106 30993 29660 1.8 -0.3 -1.9 -43.2
 160/19:13:01 70 06.7-080 11.5 0464 019.8 029 110 30993 29655 1.8 0.1 -1.1 -43.3
 160/19:13:19 70 08.9-080 09.5 0464 019.6 029 102 30994 29553 1.8 0.3 1.0 -42.8
 160/19:14:03 70 14.2-080 05.0 0466 019.3 027 116 30960 29783 1.8 -0.1 -11.2 -42.3
 160/19:15:01 70 21.6-079 55.0 0465 019.2 027 112 30938 29783 1.9 0.1 -12.9 -42.1
 160/19:16:01 70 28.9-079 52.3 0465 019.7 025 112 31020 30922 2.7 0.0 -12.9 -42.1
 160/19:16:25 70 32.1-079 49.3 0459 019.9 025 112 32752 31550 2.7 0.0 -12.9 -42.1
 160/19:17:01 70 36.4-079 45.6 0455 019.7 025 112 32752 31550 2.5 -0.1 -12.2 -42.4
 160/19:18:01 70 43.5-079 39.0 0455 019.7 026 114 32493 32151 3.2 -0.4 -11.7 -43.5
 160/19:19:01 70 50.7-079 32.6 0460 019.6 026 128 35944 32617 2.3 0.1 -6.9 -43.0
 160/19:20:01 70 58.2-079 25.7 0465 019.5 025 112 32496 32728 2.9 -0.4 -2.1 -42.3
 160/19:20:57 71 05.3-079 19.1 0465 019.2 017 110 34024 33479 2.1 -0.5 -3.4 -42.6
 160/19:21:01 71 05.3-079 18.5 0465 019.2 017 114 34866 35355 3.0 -0.6 -5.3 -42.3
 160/19:22:01 71 13.0-079 11.8 0465 019.5 020 111 35278 35522 3.0 -0.0 -9.7 -43.9
 160/19:23:01 71 20.4-079 04.7 0461 019.6 020 099 35769 34468 2.1 -0.5 -7.4 -42.6
 160/19:24:01 71 27.5-078 57.9 0460 019.6 020 114 36187 33115 2.3 -0.2 -7.2 -42.6
 160/19:25:01 71 34.9-078 43.2 0459 019.7 018 114 36529 33541 2.9 0.1 -1.1 -44.3
 160/19:26:01 71 42.2-078 43.2 0457 019.8 019 103 36999 33033 2.4 -0.1 -0.7 -42.2
 160/19:27:01 71 49.5-078 35.9 0462 019.7 017 111 36507 33037 2.8 -0.6 -1.1 -41.0
 160/19:28:01 71 56.8-078 28.6 0465 019.3 015 107 36639 36150 2.7 0.0 -12.9 -43.9
 160/19:29:01 72 04.3-078 21.0 0465 020.4 021 102 36834 34919 2.8 -0.4 -8.5 -43.3
 160/19:30:01 72 11.6-078 15.3 0465 020.6 021 115 36680 33543 2.9 0.2 -8.1 -44.2
 160/19:31:01 72 18.8-078 05.5 0461 020.5 020 115 36839 33759 2.9 -0.7 -8.7 -44.5
 160/19:32:01 72 26.3-077 57.3 0459 020.9 021 113 36638 33153 2.8 0.2 -17.0 -44.6
 160/19:33:01 72 33.4-077 49.7 0458 020.7 019 115 36670 36536 2.9 -0.4 -19.0 -44.1
 160/19:34:01 72 40.9-077 41.7 0457 020.3 017 118 36536 34733 2.9 -0.2 -29.7 -44.5
 160/19:35:15 72 48.2-077 39.7 0457 020.4 017 112 36655 34921 2.9 0.0 -27.0 -45.0
 160/19:35:57 72 54.8-077 36.9 0459 020.6 016 119 36979 35766 2.6 0.1 -26.4 -44.7

CORRECTION: CRK MISSING ON COMMENT PAGE AT 18 56 CS.
 SOME PATCHES GOING UP
 OVER THE EDGE OF BOX MASH.
 ALONG WEST SINCE THERE IS A SMOKE FOUNTAIN CAN BE SEEN FROM THE CLOUDS.
 CAN NOT TELL IF IT IS NEW ICE.
 WHO HAS STRIPPED OUT THE ICE COVER.
 CAN SEE UP OVER THE ESCRATA.
 CORRECTION ESP2.
 CAN SEE EDGE OF FOUNTAIN TO THE LEFT OF THE AIRCRAFT 10 TO 15 MILES.
 BREAK IN CLOUDS ALONG THE SMOKE LINE.
 FORWARD THEN STRATUS CHECK NEW FOUNTAIN 10 MILES FORWARD OF AIRCRAFT.
 STRATUS CHECK IS THINNING AND CAN SEE FAIRLY WELL FROM IT.
 SMALL PATCHES DRIFTING IN THE PATCHES.
 EDGE OF FOUNTAIN.
 ICE IS ICD PERCENT ICE COVERED - CRK MASH.
 CAMERAS ON 19 08 CO.
 ICE IS ICD PERCENT ICE COVERED - CRK MASH.
 19 08 45 ACDAS DOWN - 19 09 20 ACDAS UP.
 50 PERCENT STRATUS - CRK.
 19 08 45 ACDAS DOWN - 19 09 20 ACDAS UP.

AWN - NOT TAKING DATA AT THIS TIME.
 RAY - ASK OF BOX MASH IS ICD ICE CONCENTRATION.
 CLOUD PERCENT.
 CLOUD COVERAGE LEAVING - CLEAR PATCHES, ICD PERCENT ICE.
 CLOUD COVER IS DECREASES ABOUT 40 PERCENT STRATUS.
 CLOUD COVER IS DECREASES ABOUT 40 PERCENT STRATUS.
 STATION IS SHUT DOWN - BUILDING SMOKE - MOUNTAINS BACK.
 DOWNWER CANCELED.

YEAR	1964	ACRAS	FLIGHT	LOG	---	FLIGHT	NO.	---	HEXZ	---	TEMP	---	FL	---
TIME	---	LAT	---	LONG	---	GRID	INTE	---	PREC	REAR	PTCH	ROLL	IR	---
---	---	---	---	---	---	SPD	DIR	---	ALTITUDE	---	IR	---	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
160/20:03:11	75	41.9-071	22.3	0213	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:04:11	75	41.9-071	15.5	013.5	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:05:11	75	41.9-071	15.5	013.5	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:06:11	75	45.6-071	09.6	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:07:11	75	45.6-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:08:11	75	46.4-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:09:11	75	46.4-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:10:11	75	46.4-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:11:11	75	46.4-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:12:11	75	46.4-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:13:11	75	46.4-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:14:11	75	46.4-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:15:11	75	46.4-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:16:11	75	46.4-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:17:11	75	46.4-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:18:11	75	46.4-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:19:11	75	46.4-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:20:11	75	46.4-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:21:11	75	46.4-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:22:11	75	46.4-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:23:11	75	46.4-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:24:11	75	46.4-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:25:11	75	46.4-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:26:11	75	46.4-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0
160/20:27:11	75	46.4-071	03.4	0196	034.6	077	152	---	577	653	3.3	-0.8	---	1.0

1.0 FROSTED ICE.
0.8 MEDIUM SIZE FLICES, 50 PERCENT ICE CONCENTRATION, OPEN WATER.
1.1 2 SMALL FLICES.
1.3 WEEPING FELT ON LARGE FLICES.

0.3
0.5
0.5
1.8
3.4
1.4
2.2
2.2
2.2
2.2
1.1
1.1
1.2
0.0
0.0
0.1
0.1
0.1
0.0

0.2
0.2
0.5
0.3
0.3
0.1
0.4
0.1
0.1
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0

0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0

0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0

0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0

0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0

0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0

0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0
0.0

3.2 First data flight—day 161—Thule to Evenes.

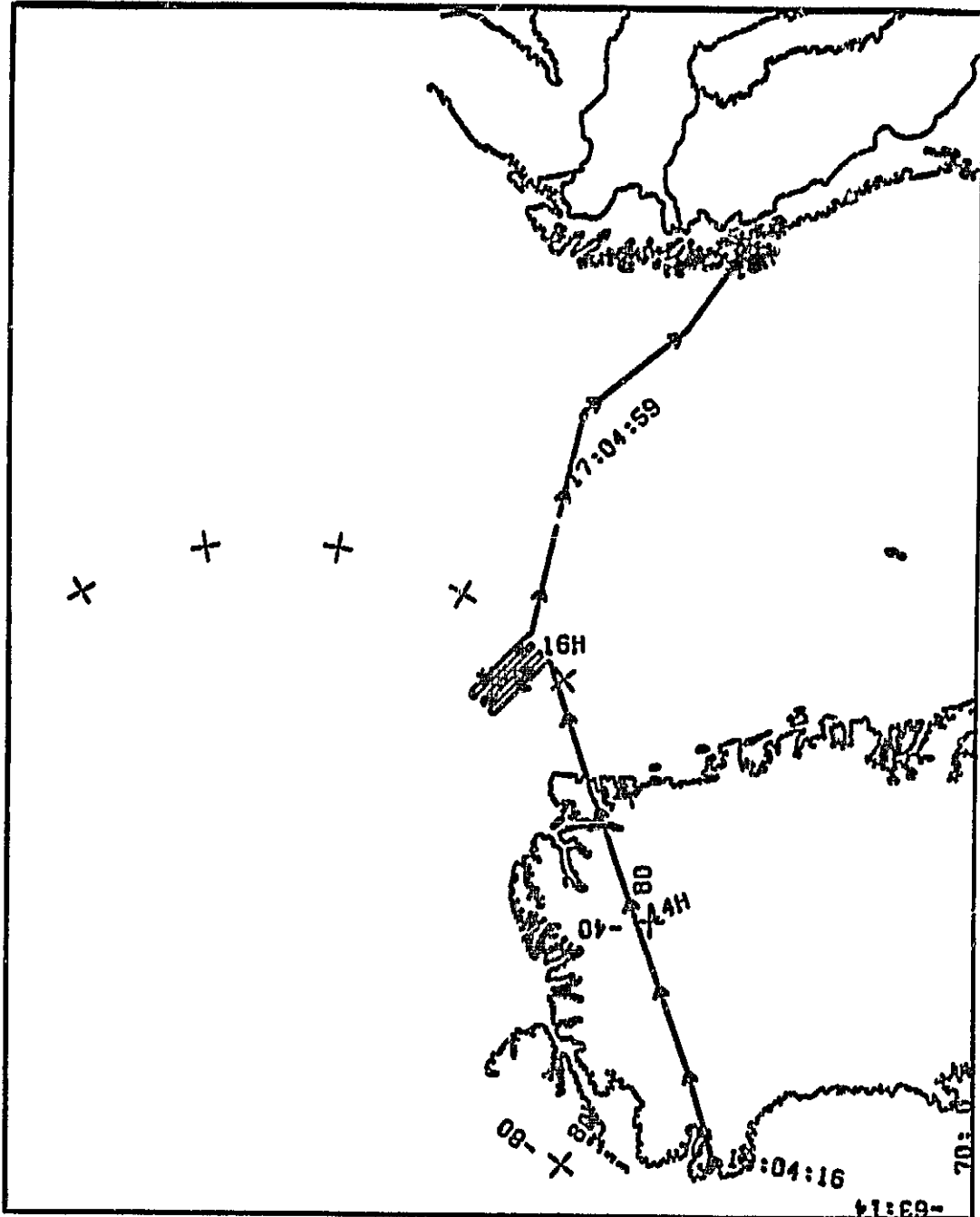
All instruments were operational except the Georgia Tech 94 GHz imager, which could not be accessed because of the heavy cargo load for this transit flight.

Pattern 'A' was executed going from west to east. Polarqueen was estimated to lie between tracks three & four of the mosaic pattern, about 60 Km from the southern edge. The real-time ESMR images indicated that the ice was near or above the melt point over the entire MIZEX area.

The decision to fly on a SMMR-off day was made so as not to impact the rest of the aircraft schedule.

Our attempt to acquire the RAL corner reflectors on Lofoten (for calibrating the RAL altimeter) was foiled by the accumulated error on the INS, and the weak reception on the Loran-C.

ORIGINAL PAGE 16
OF POOR QUALITY



0115X 1884 FMS JUNE 8-1984 THULE TO EVANES
19:04:16 TO 19:10:16 UT SCALE = 1:1-400:07 TIME TICS EVERY 20.00 MINUTES

Figure 3. Flight tracks: Thule/Evanes 6/9

ORIGINAL PAINT IS
OF POOR QUALITY

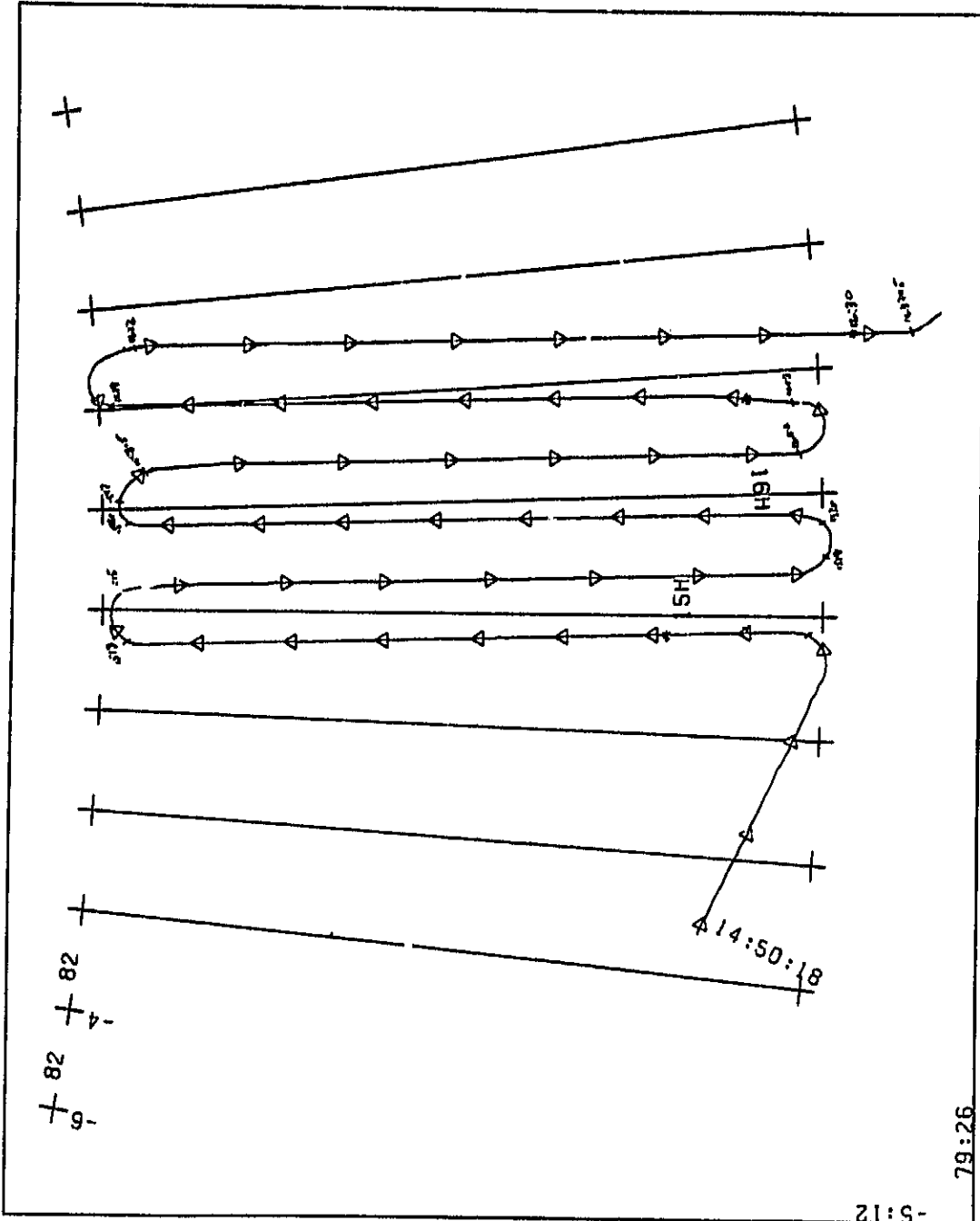


Figure 4. Mosaic pattern: 6/9

ORIGINAL FACSIMILE
OF POOR QUALITY

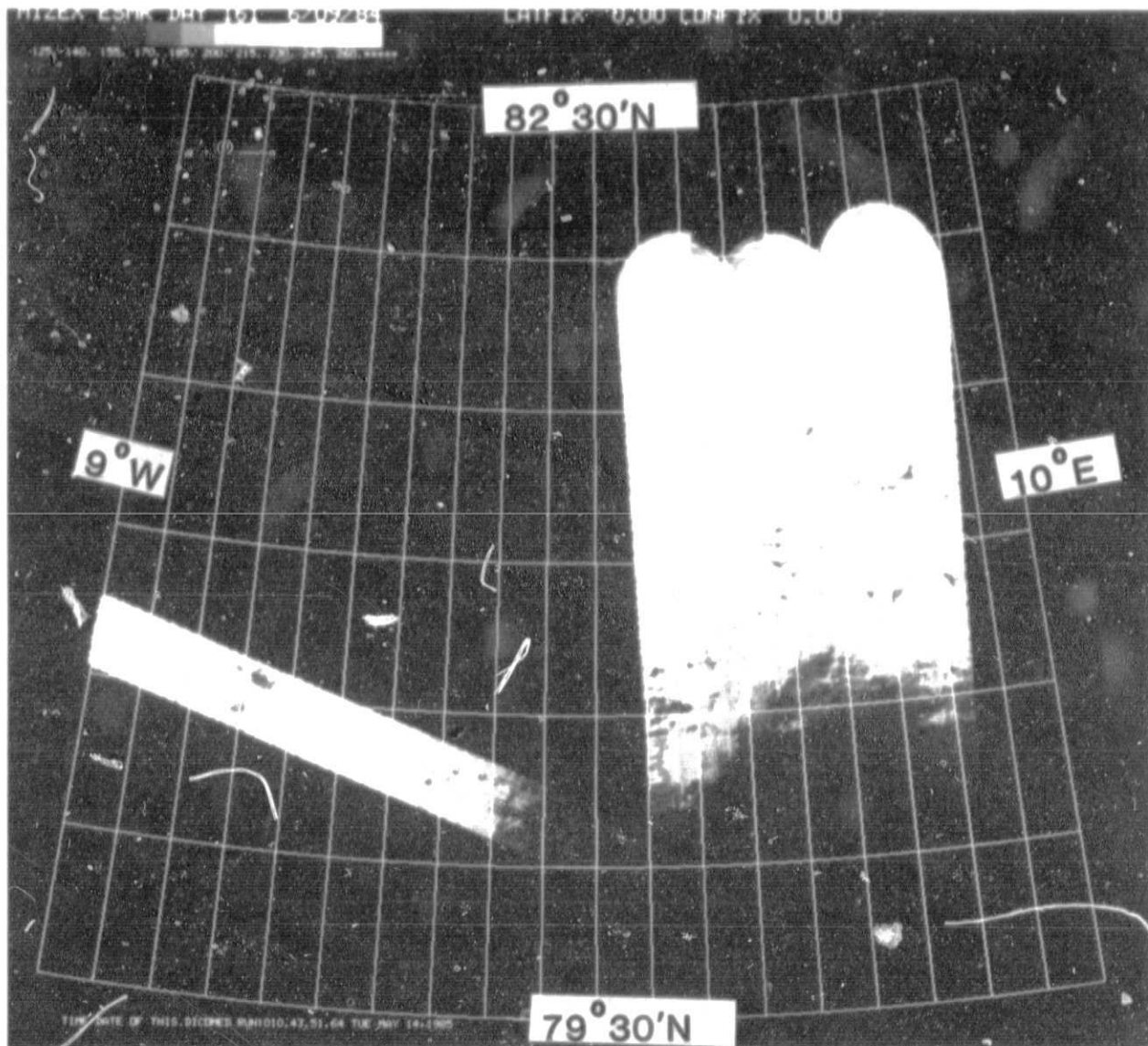


Figure 5. ESMR mosaic: 6/9

ORIGINAL PAGE IS OF POOR QUALITY

YEAR 1984 ADDAS FLIGHT LOG --- FLIGHT NO. 5 --- MIZEX
 ---TIME--- --LAT--- --LONG--- GRID TRJCE --ALTIMETER---
 SPD DIR PRES RADAR PITCH ROLL IR --TEMP-- AIR

161/14:05:00	80	28.7	-037	47.0	027	012	32951	25971	2.3	-0.2	-9.1	-52.3
161/14:05:00	80	30.7	-036	51.8	027	011	32940	26085	2.5	0.1	-9.0	-52.8
161/14:05:00	80	32.8	-036	57.5	027	011	32958	26229	2.5	0.1	-8.8	-54.2
161/14:07:20	80	34.7	-035	29.5	026	010	32958	26433	2.6	-0.4	-8.5	-54.7
161/14:07:20	80	35.3	-035	15.4	026	010	32958	26460	2.6	-0.4	-8.5	-54.7
161/14:08:00	80	36.4	-034	46.2	026	011	32953	26584	2.5	0.0	-8.7	-51.9
161/14:08:00	80	36.9	-034	35.4	026	011	32950	26634	2.6	0.1	-7.9	-53.5
161/14:08:00	80	38.5	-033	59.9	025	009	32963	26745	2.5	0.2	-7.4	-52.9
161/14:10:00	80	41.1	-032	36.3	024	008	32957	26871	2.4	0.0	-7.4	-55.5
161/14:10:00	80	41.7	-032	36.3	024	008	32957	26871	2.4	0.0	-7.4	-55.5
161/14:11:00	80	41.5	-032	30.5	025	009	32949	26580	2.5	0.0	-7.3	-52.4
161/14:11:36	80	42.3	-032	02.9	026	012	32964	27070	2.3	0.0	-7.3	-54.0
161/14:11:48	80	42.7	-031	53.2	025	009	32968	27073	2.4	0.0	-7.1	-53.2
161/14:12:00	80	43.0	-031	43.2	025	009	32968	27073	2.4	0.0	-7.1	-53.2
161/14:12:04	80	43.1	-031	43.2	025	009	32968	27073	2.4	0.0	-7.1	-53.2
161/14:13:00	80	44.5	-029	57.2	025	009	32972	27193	2.3	-1.2	-6.9	-52.8
161/14:14:00	80	45.0	-029	10.9	024	008	32964	27422	2.3	0.4	-6.9	-52.9
161/14:15:00	80	45.0	-028	33.0	024	008	32956	27682	2.3	0.3	-7.2	-54.3
161/14:16:04	80	48.0	-028	32.9	024	008	32963	28552	2.3	-0.3	-4.2	-53.7
161/14:17:00	80	49.0	-027	48.5	024	008	32962	29017	2.3	-0.3	-2.3	-54.6
161/14:17:56	80	49.8	-027	01.6	024	008	32966	30417	2.4	0.2	9.0	-55.0
161/14:18:00	80	49.8	-026	58.7	024	008	32960	30345	2.3	0.2	10.8	-52.7
161/14:18:10	80	49.9	-026	51.2	024	008	32961	30744	2.3	0.2	11.2	-52.3
161/14:18:16	80	50.0	-026	45.5	024	008	32964	30823	2.3	0.2	9.9	-53.7
161/14:19:00	80	50.0	-026	55.7	024	008	32965	32101	2.2	-0.4	6.3	-54.4
161/14:19:00	80	50.3	-025	30.9	024	008	32966	30879	2.3	-0.2	2.2	-53.5
161/14:20:00	80	51.4	-024	31.9	024	008	32966	31317	2.2	0.2	-2.2	-53.7
161/14:21:00	80	51.7	-024	28.0	024	008	32966	31864	2.2	0.2	-1.6	-52.9
161/14:22:00	80	52.0	-023	45.7	024	008	32965	32047	2.1	-0.2	-1.7	-53.0
161/14:22:18	80	52.0	-023	28.9	024	008	32966	29485	2.2	0.1	-3.1	-52.9
161/14:25:00	80	52.6	-021	15.2	024	008	32965	30150	2.2	0.4	-2.9	-52.6
161/14:25:08	80	52.6	-021	15.2	024	008	32965	30150	2.2	0.4	-2.9	-52.6
161/14:26:04	80	53.3	-020	22.1	024	008	32962	29559	2.1	-0.2	-2.1	-53.6
161/14:27:00	80	53.8	-019	36.0	024	008	32973	30468	2.2	0.1	-3.1	-52.9
161/14:28:00	80	54.9	-018	47.5	024	008	32973	30506	2.0	0.1	-1.9	-52.7
161/14:29:00	80	54.3	-017	57.5	024	008	32965	30960	2.2	-0.6	-0.2	-52.8
161/14:30:00	80	53.6	-017	44.6	024	008	32964	31072	2.2	-0.1	0.3	-54.6
161/14:32:01	80	51.7	-015	21.7	024	008	32957	31103	2.0	-0.1	-1.3	-53.1
161/14:32:01	80	51.7	-015	21.7	024	008	32957	31103	2.0	-0.1	-1.3	-53.1
161/14:33:00	80	51.7	-015	17.5	024	008	32945	31152	2.2	-0.4	-1.5	-52.3
161/14:33:00	80	51.4	-015	07.4	024	008	32951	30018	2.3	0.1	-2.2	-52.9
161/14:33:00	80	51.3	-015	00.0	024	008	32960	30948	2.1	0.2	-3.6	-53.7
161/14:33:00	80	50.9	-014	61.4	024	008	32954	30927	2.2	-0.3	-5.9	-55.0
161/14:33:01	80	50.3	-014	58.9	024	008	32954	30927	2.2	-0.3	-5.9	-55.0
161/14:33:01	80	50.3	-014	58.9	024	008	32954	30927	2.2	-0.3	-5.9	-55.0
161/14:33:01	80	50.6	-014	27.7	024	008	32945	31761	2.3	0.0	-11.7	-54.7
161/14:33:01	80	50.2	-014	03.8	024	008	32952	31950	2.2	-0.2	-16.1	-54.6
161/14:33:01	80	49.9	-013	25.9	024	008	32956	31963	2.1	0.0	-19.9	-54.3
161/14:33:01	80	49.7	-013	25.9	024	008	32956	31963	2.1	0.1	-19.4	-54.3
161/14:33:01	80	48.7	-013	12.5	024	008	32944	31983	2.2	-0.1	-0.0	-55.3

NO CAMERA ON THE LEFT BEING USED.

APPROACH THE MOUNTAINS THE VISIBILITY IS EXCELLENT STILL STRATUS ABOUT 40 FEET

ANN - STARTING MAKE DATA RUN.

SIGNALS FROM MTZ.

NOT ENOUGH SIGNAL STRENGTH FOR LOGAN C TO WORK ACCURATELY.

HAS WORKING WELL ABOUT 20 MINUTES AGO.

MOUNTAINS THE SURFACE IS CLEAR - NO SURFACE CLOUDS.

OVER SMALL GLACIER??, LAND.

GOOD VISIBILITY - CLEAR VIEW OF GREENLAND.

ALL GLACIERS ARE RETREATING.

LOT OF GLACIER MORAINES.

OVER FIRST FJORD, SEA ICE.

FROZEN FIRST YEAR SEA ICE.

GLACIERS THAT SURGED - VERY SMOOTH, VERY VAST THEN STOP.

PASSED OVER GLACIER.

CAMERAS ON AT 19 25 30.

OVER SLURRING GLACIER.

EXPUSE ROCK TO THE RIGHT.

EXTENSIVE SHORE POLYNYA.

20 MILES IN EACH DIRECTION.

EXTENSIVE SHORE POLYNYA.

CLASSIC SHORE POLYNYA.

FJORD DIVERSION 29.1 HILLMATS.

EDGE OF CONTINENT AND PROCEEDING INTO POLYNYA.

GREASE ICE

HOST OF THESE OPEN WATER AND THIN ICE.

SEE FIRST YEAR AND MULTYEAR MEDIUM AND SMALL FLOES IN POLYNYA.

PATCHES OF OPEN WATER NEAR ICE FLOES.

YEAR 1984 ADDAS FLIGHT LOG --- LAT --- LONG --- GND UNCL --- SPD HEAD --- GND UNCL --- SPD --- ALTITUDE --- AIR --- TEMP ---
 ---TIME --- --LAT-- --LONG-- --GND UNCL-- --SPD HEAD-- --GND UNCL-- --SPD--- --ALTITUDE--- --AIR--- --TEMP---
 161/15:26:04 80 22.4 004 40.1 0494 179.1 026 358 32960 31709 2.1 0-3 -4.0 -51.7 LOTS OF OPEN WATER ON PORT SIDE. LAT 6005.6 N LONG 03441.6 E FL 329
 161/15:26:12 80 22.5 004 40.1 0494 179.1 026 358 32960 31709 2.1 0-3 -3.9 -51.9 ORIENTATION OF PLUME IS
 161/15:26:16 80 21.7 004 40.0 0494 179.1 025 358 32958 31717 2.0 -0.5 -4.2 -52.2 EASTWEST.
 161/15:26:34 80 20.7 004 40.1 0494 179.1 025 358 32950 31732 2.0 -0.1 -3.1 -50.5 ORIENTATION OF PLUMES IS EASTWEST.
 161/15:27:00 80 15.8 004 40.5 0494 179.2 027 357 32956 31752 2.0 -0.1 -2.4 -50.9
 161/15:27:32 80 11.5 004 40.9 0495 179.0 027 359 32958 31741 2.1 0-1 -2.7 -49.6 STILL NUMEROUS SMALL PLUMES.
 161/15:28:09 80 07.7 004 40.4 0499 179.0 029 360 32976 31775 1.9 0-2 -2.1 -51.0 END OF RUN 2 TIME 15.28.15 LAT 6005.6 N LONG 03441.6 E FL 329
 161/15:28:16 80 05.9 004 40.5 0502 181.2 029 357 32977 31742 1.8 -0.4 -2.0 -50.7 SOUTHERN EDGE OF MIZ BOX IS CLEAR THIN LAYER OF WAZZ.
 161/15:29:10 79 58.2 005 08.2 0472 181.2 042 359 33014 31827 3.0 -25.3 -3.9 -51.1
 161/15:29:20 79 58.7 005 08.3 0473 181.2 042 359 33014 31827 3.0 -25.3 -3.9 -51.1
 161/15:29:32 79 58.7 005 16.5 0466 077.0 045 353 33001 31829 3.0 -37.3 -2.6 -50.4 CORRECTION: LAYER.
 161/15:30:00 80 00.4 005 33.3 0431 330.1 043 338 33031 31894 2.1 -0.39.8 -1.8 -50.3 CORRECTION: LAYER.
 161/15:30:06 80 04.6 005 39.0 0435 043.4 035 343 32942 31634 2.3 -5.2 -0.8 -50.3 CORRECTION: LAYER.
 161/15:30:36 80 04.6 005 39.0 0435 043.4 035 343 32942 31634 2.3 -5.2 -0.8 -50.3 CORRECTION: LAYER.
 161/15:31:00 80 07.4 005 39.6 0433 043.0 035 344 32991 31663 2.2 -1.9 -3.0 -49.7 *** START OF RUN 3
 161/15:31:42 80 07.3 005 39.7 0433 043.7 035 344 32991 31663 2.2 -1.7 -2.5 -50.0

161/15:31:44 80 12.8 005 40.0 0432 359.0 034 345 32938 31655 2.1 0.0 -2.6 -49.3 ANN - MADE DATAPPOINT 3975.
 161/15:32:00 80 14.8 005 39.8 0431 359.1 032 346 32937 31706 2.1 0.0 -2.9 -50.7 PLUMES GENERALLY DISTRIBUTED EAST AND WEST.
 161/15:32:06 80 15.4 005 39.6 0431 359.2 034 345 32944 31721 2.2 0.0 -3.3 -49.5
 161/15:32:10 80 15.8 005 39.8 0431 359.2 034 346 32956 31713 2.1 -0.2 -2.8 -50.5 DISRUPTED ICE EDGE.
 161/15:33:00 80 21.8 005 39.8 0430 359.3 035 344 32956 31733 2.1 -0.2 -3.9 -52.3

161/15:33:56 80 28.2 005 40.4 0429 358.6 037 342 32960 31763 2.2 -0.6 -19.7 -51.5 AT THE TRANSITION TO THE FRACTURED ICE ZONE.
 161/15:34:00 80 28.9 005 40.2 0429 358.5 035 342 32961 31719 2.2 -0.3 -2.2 -51.0 WEATHER AT POLAR GREEN NOW
 161/15:34:24 80 34.1 005 40.1 0429 358.6 034 343 32954 31705 2.2 -0.3 -0.3 -51.3 RUNS 320 AT 18 KNOTS.
 161/15:34:42 80 34.1 005 40.1 0428 358.6 034 343 32958 31695 2.4 -0.4 -7.6 -49.8
 161/15:34:52 80 35.0 005 40.1 0428 358.7 034 345 32957 31699 1.9 0.1 -8.6 -49.0 A LOT OF CLOUDS.

161/15:35:00 80 36.2 005 40.1 0428 358.9 034 345 32949 31692 2.3 0.0 -8.8 -50.4 SHOULD BE ABLE TO SEE THE POLAR GREEN SOON.
 161/15:35:02 80 39.8 005 39.8 0428 358.9 034 345 32955 31703 2.1 -0.1 -9.0 -49.6 THE CLOUD COVER IS ABOUT 92% STRATOCUMULUS.
 161/15:35:28 80 39.4 005 40.0 0428 359.3 034 344 32952 31704 2.2 -0.5 -11.2 -51.4 CLOUD COVER IS INCREASING.
 161/15:35:46 80 41.5 005 40.3 0428 359.7 035 344 32958 31722 2.2 -0.5 -19.5 -51.1 CLOUD COVER IS INCREASING.
 161/15:36:00 80 43.2 005 40.0 0427 358.8 034 344 32966 31711 2.1 -0.1 -17.9 -50.3 NOW ENTERING THE PD_AR PARK.

161/15:36:46 80 48.2 005 40.4 0427 359.2 034 345 32960 31716 2.1 -0.4 -9.5 -51.5 WE'RE OVER LARGE TO MEDIUM SIZE PLUMES.
 161/15:37:00 80 50.3 005 40.3 0427 358.9 034 345 32961 31723 2.2 -0.5 -12.4 -51.7 CLOUD COVER INCREASING ABOUT 60%.
 161/15:37:10 80 54.5 005 40.1 0425 359.3 034 348 32949 31752 2.0 -0.7 -13.8 -49.7
 161/15:37:40 80 01.0 0425 359.3 034 348 32949 31752 2.0 -0.6 -8.8 -48.7
 161/15:40:00 81 11.5 005 40.4 0425 359.0 036 349 32959 31718 2.3 -0.3 -6.3 -51.3
 161/15:41:00 81 18.6 005 40.1 0424 359.4 032 354 32960 31712 2.4 0.0 -7.6 -51.2 NUMEROUS LARGE AND MEDIUM PLUMES. ICE CONCENTRATION 90%.
 161/15:41:22 81 21.1 005 40.0 0424 359.7 033 355 32960 31721 2.2 0.0 -6.7 -49.3
 161/15:42:00 81 25.5 005 40.1 0424 359.4 031 351 32958 31738 2.4 -0.3 -5.7 -48.4
 161/15:42:32 81 29.4 005 39.7 0424 359.2 033 350 32963 31701 2.4 -0.3 -9.1 -49.2 IT APPEARS THAT THERE IS THIN ICE IN THE FELVICS.
 161/15:42:54 81 31.9 005 39.8 0424 359.1 035 349 32965 31733 2.4 -0.4 -8.3 -51.4 AS WE APPROACH THE END OF THE RUN WAZZ IS INCREA

161/15:42:58 81 32.2 005 39.8 0424 359.0 035 348 32969 31723 2.2 -0.3 -10.1 -49.8 ING.
 161/15:43:06 81 32.3 005 39.8 0424 359.0 035 348 32969 31723 2.2 -0.3 -12.4 -49.8 ICE CONCENTRATION IS ABOUT 95%
 161/15:43:34 81 36.4 005 39.7 0424 359.2 036 350 32950 31716 2.4 -0.2 -12.1 -49.5 THAT'S INCREASING ABOVE.
 161/15:44:00 81 39.7 005 39.8 0423 359.1 035 347 32960 31728 2.3 -0.2 -10.7 -49.4 ONE MOUNTAIN 'TIL END OF RUN THREE.
 161/15:44:46 81 45.0 005 40.1 0423 359.1 034 346 32960 31757 2.2 0.0 -13.1 -49.2
 161/15:45:00 81 46.6 005 40.0 0423 359.1 034 348 32955 31697 2.2 -0.2 -15.3 -49.4 LARGE MEDIUM PLUMES. ICE CONCENTRATION 95%.
 161/15:45:06 81 47.2 005 40.2 0423 359.1 036 349 32950 31766 2.2 -0.3 -15.3 -48.6
 161/15:45:54 81 53.1 005 40.0 0423 359.1 036 349 32950 31697 2.2 0.2 -19.1 -48.8 END OF RUN 3 TIME 15.45.55

161/15:46:00 81 53.6 005 40.0 0423 041.9 035 356 32943 31736 4.4 23.1 -18.2 -50.0 LOCAL TIME IN EVENING IS 17:46
 161/15:46:30 81 57.2 006 48.1 0422 172.9 026 357 32905 31783 2.5 26.7 -18.4 -48.7
 161/15:47:28 81 57.7 006 48.1 0422 172.9 026 357 32905 31783 2.5 26.7 -18.4 -48.7 TEST
 161/15:48:06 81 57.7 006 48.1 0422 172.9 026 357 32905 31783 2.5 26.7 -18.4 -48.7
 161/15:48:06 81 50.6 008 48.2 0495 166.9 029 352 32917 31642 2.5 31.9 -12.2 -50.9
 161/15:49:19 00 00.0 000 000.0 000 000 000 000 000 000 000 000 000 000 2.1 -0.6 -15.5 -49.4
 161/15:50:25 81 34.5 006 48.9 0491 182.1 026 000 32954 31687 2.0 -1.0 -13.1 -50.3 *** START OF RUN
 161/15:50:59 81 33.3 006 48.9 0491 181.4 024 357 32951 31687 2.0 -0.3 -9.6 -48.8
 161/15:50:59 81 33.3 006 48.8 0491 181.5 024 359 32954 31686 2.1 -0.1 -10.2 -49.1 BOX CLOUD COVER.
 161/15:50:27 81 30.9 006 48.5 0491 181.3 024 358 32954 31690 2.2 -0.2 -7.2 -49.7 REAL START OF RUN SHOULD BE 15:48:55.

YEAR 1984	ADIDAS FLIGHT LOG				FLIGHT NO.		5		--- MEZEX		LAT	LONG	TIME	TIME		TEMP		IR	AIR	FL
	TIME	LAT	LONG	HEAD	SFD	TRLE	HIND	ALTITUDE	PRES	RAIAR				PITCH	ROLL	IR	AIR			
	1617/16:17:01	01 01	43.0	007	59.2	0423	002.1	030	357	32553	31711	2.2	-0.2	-16.4	-49.4	100	PERCENT STRATOCUMULUS.			
	1617/16:18:01	01 01	50.0	003	01.4	0421	001.8	032	355	32587	31673	2.1	-0.5	-15.5	-49.5	100	PERCENT STRATOCUMULUS.			
	1617/16:19:01	01 01	50.1	003	01.3	0421	001.8	031	355	32550	31663	2.1	-0.4	-16.1	-49.1	100	PERCENT STRATOCUMULUS.			
	1617/16:20:01	01 01	52.3	003	03.3	0421	001.9	030	357	32552	31676	2.2	-0.2	-17.9	-49.1	100	PERCENT STRATOCUMULUS.			
	1617/16:21:01	01 56.8	0424	001.9	030	355	32566	31685	2.4	0.8	-16.9	-47.6	100	PERCENT STRATOCUMULUS.						
	1617/16:22:01	01 56.8	0424	001.9	030	355	32566	31685	2.4	0.8	-16.9	-47.6	100	PERCENT STRATOCUMULUS.						
	1617/16:23:01	01 57.2	003	05.3	0424	002.2	029	356	32569	31673	2.5	0.5	-13.9	-48.4	100	PERCENT STRATOCUMULUS.				
	1617/16:24:01	01 56.1	0422	037.4	017	041	33018	31796	2.7	38.2	19.2	-49.3	100	PERCENT STRATOCUMULUS.						
	1617/16:25:01	01 51.8	0476	126.4	0476	126.4	0476	126.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:26:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:27:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:28:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:29:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:30:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:31:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:32:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:33:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:34:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:35:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:36:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:37:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:38:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:39:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:40:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:41:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:42:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:43:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:44:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:45:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:46:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:47:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:48:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:49:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:50:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:51:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:52:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:53:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:54:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:55:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:56:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						
	1617/16:57:01	01 47.8	0476	103.4	0476	103.4	0476	103.4	2.4	1.1	-10.4	-48.7	100	PERCENT STRATOCUMULUS.						

100 PERCENT STRATOCUMULUS.
 END OF RUN 5
 TIME 16.10.53
 LAT 8156.8 N
 UCI C039.6 E
 FL 329

NORTHEAST OF RIZ BOX IS 100 PERCENT STRATOCUMULUS CLOUD COVER.
 *** START OF RUN 6
 TIME 16.22.06
 LAT 8157.0 N
 UCI C039.5 E
 FL 329

AREA Hazy MOD/WEAK FLOES, 95 PLUS FERRITE ICE CONCENTRATION.
 FLICE SIZE DECREASING TO FERRITE ICE CONCENTRATION.
 LARGE MULTILAYER FLICE TO THE LEFT OF THE AIRCRAFT.
 CLOUD COVERAGE 40 PERCENT STRATOCUMULUS.
 CLOUD COVERAGE INCREASING.

TRANSITION INTO FRACTURED ICE ZONE.
 EASTERN SIDE OF RIZ BOX THE FRACTURED ICE ZONE IS Nearer THEM ON THE WESTERN SI
 LEAVES FRACTURED ICE ZONE INTO PURE STRUCTURES.
 PLUME ORIENTATION IS STILL EASTWEST.
 SEEN TO BE AT THE END OF THE FLUMES SEE HERE TO THE SOUTH OF US.

END OF RUN 6
 TIME 16.37.10
 LAT 7946.8 N
 UCI C039.6 E
 FL 329

AREA - START & TH PURE DATA RUN .

AREA - MAKE DATA RUN 16 49 CD ASCERTAIN.

YEAR 1984	AZDAS	FLIGHT LOG	NO.	5	HEX	HEX	HEX	HEX	HEX	HEX	HEX	HEX	HEX	HEX	HEX	HEX	HEX	HEX
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
181/16:57:01	77	25.4	016	17.8	0478	154.2	019	030	32955	31360	1.9	-0.2	-11.3	-53.5				
181/16:57:17	77	23.6	016	21.9	0478	154.7	018	015	32954	31326	1.7	-0.3	-9.3	-53.6				
181/16:58:01	77	18.0	016	32.9	0478	154.9	019	017	32956	31372	1.7	0.0	-26.7	-49.9				
181/16:59:01	77	18.8	016	46.9	0478	154.7	021	023	32960	31591	2.0	0.0	-21.4	-53.8				

3.3 Second data flight—day 164—Evenes RT

All instruments were operational.

Pattern 'A' was flown rather than the planned pattern 'E' because of surface reports through Tromso indicated warm ice conditions north of the Polarqueen, and colder conditions to the East. Consequently, the pattern was situated so that according to the last reported position of the Polarqueen, she would be located on the westernmost leg of that pattern. (Unfortunately, our best efforts to contact Tromso the morning of the flight were to no avail, since all of the phone lines there were either busy or remained unanswered up to the time of takeoff.) When we finally contacted the Polarqueen directly en route, the current position she reported was such that she would have fallen just outside our mosaic to the west. Luckily, due to a combination of errors, she fell directly underneath us on the last leg of the mosaic pattern. The pattern was flown from east to west, our normal mode of operation.

This time, the ESMR mosaic prepared on board showed that the ice was below freezing in the southern part of the MIZEX area, but mostly towards the west rather than towards the east as had been predicted by Tromso. In this area, the multiyear floes could easily be distinguished on the ESMR mosaic.

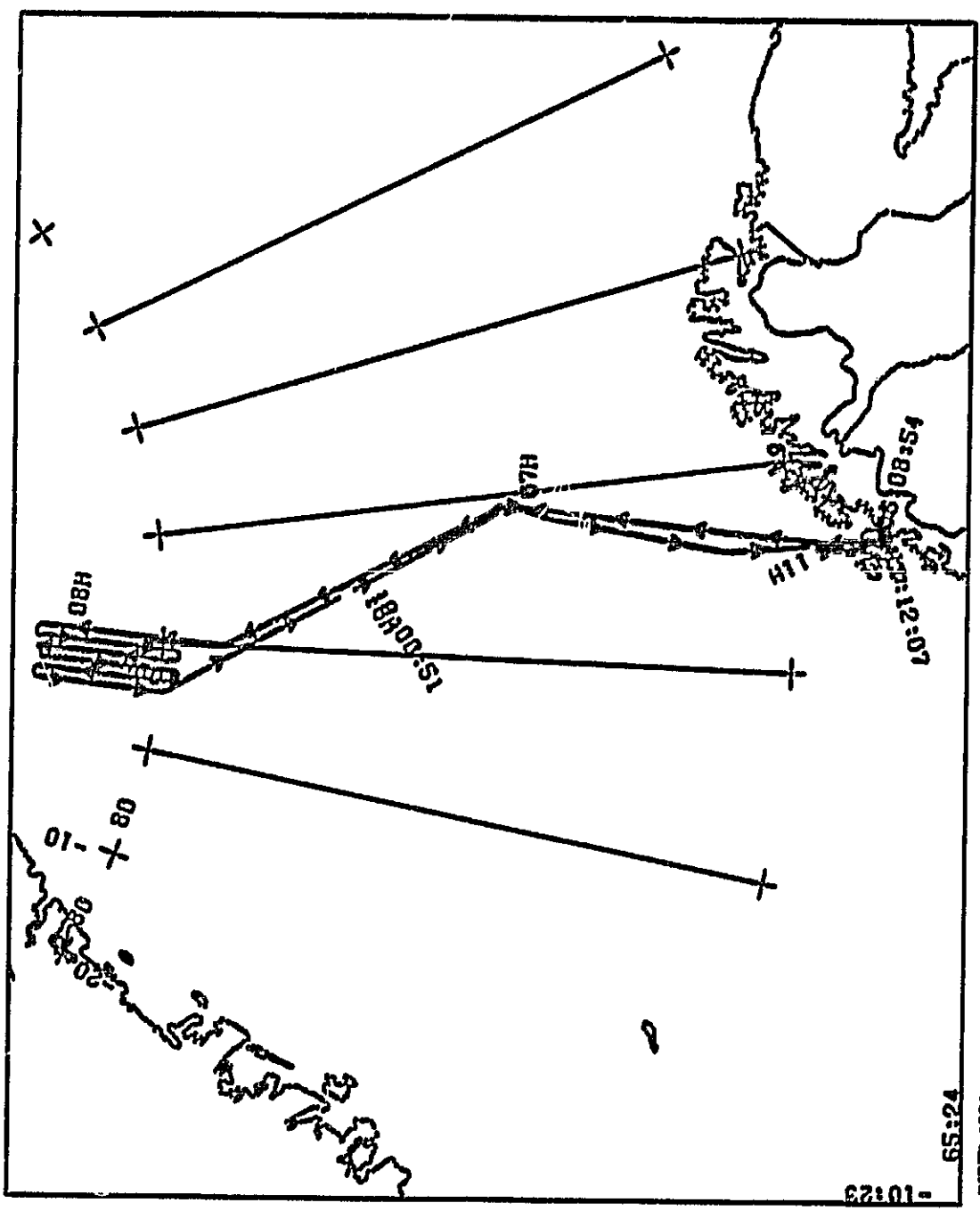
Initial evaluation of the data indicate a very successful mission, indeed, since all of the microwave equipment on board appeared to be operating properly.

Post-flight comparison with Nimbus-7 SMMR data caused us some momentary regret at not pursuing the long-track, four-leg mosaic as originally planned, since there was indeed cold ice signature shown on the satellite image north of the six-leg pattern that was flown. Indeed, the warm spot at the north of our pattern also clearly showed up on the SMMR image. On the other hand, the varied data that were acquired in an area where more surface information is available more than compensated for our momentary regrets.

Upon landing, the aircraft suffered damage to her left-wing center spoiler, so was out of commission until late on Sunday, June 17.

PRECEDING PAGE BLANK NOT FILMED

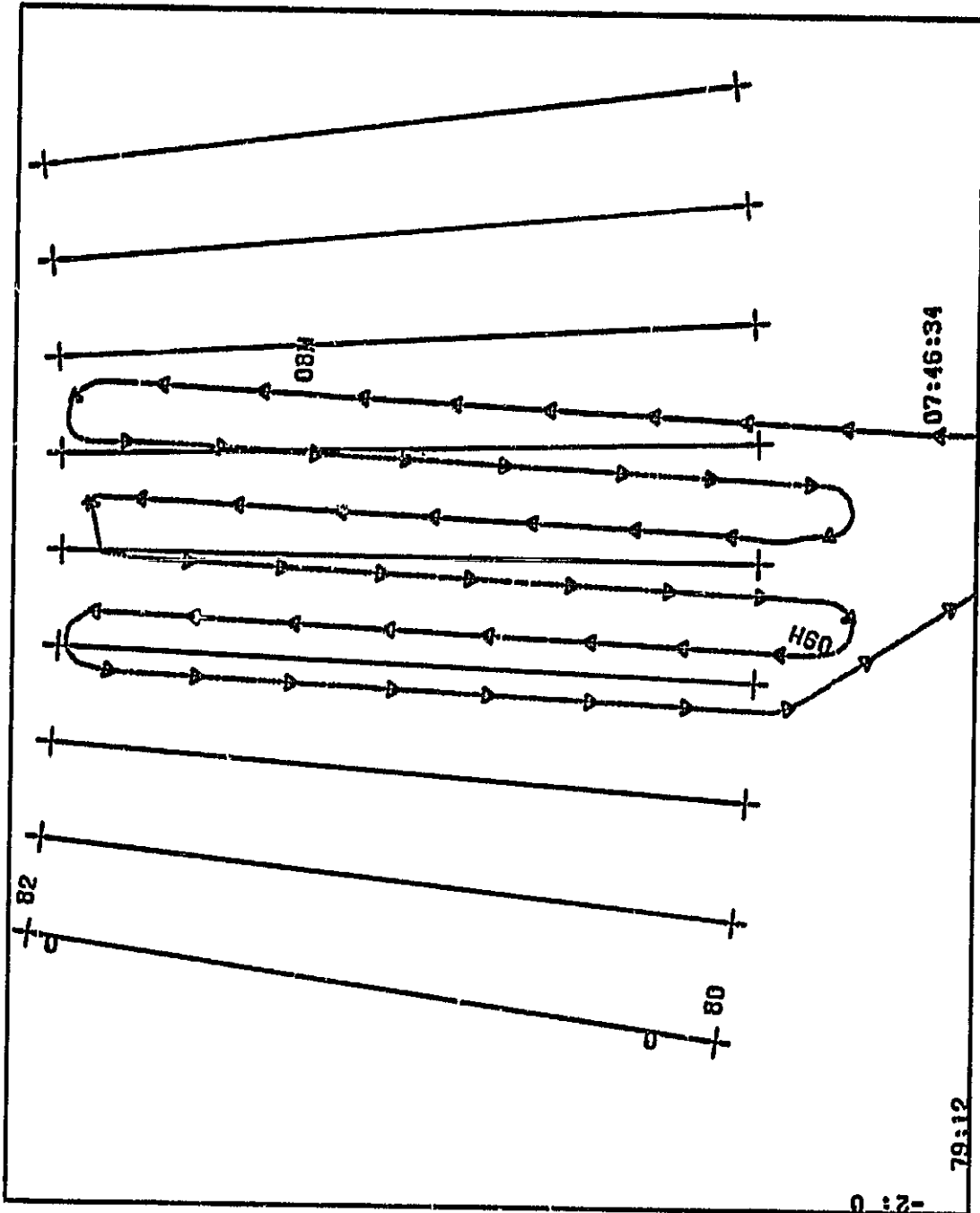
ORIGINAL PAGE 13
OF POOR QUALITY



FLY 08 JUNE 12. 1984 EVENS LOCAL
01:00:43 TO 11:00:27 UT SCALE = 1:30-315:00 TIME TICS EVERY 10.00 MINUTES

Figure 6. Flight tracks: Evens RT 6/12

ORIGINAL PAGE IS
OF POOR QUALITY



79:12
0:2
MIXER 1804 FLT-6 JUNE 12. 080 EVENING LOCAL
7:46:34 TO 19:31:22 UT SCALE = 1:11.52E+05 TIME TICS EVERY 3.00 MINUTES

Figure 7. Mosaic pattern: 6/12

ORIGINAL PAGE IS
OF POOR QUALITY.

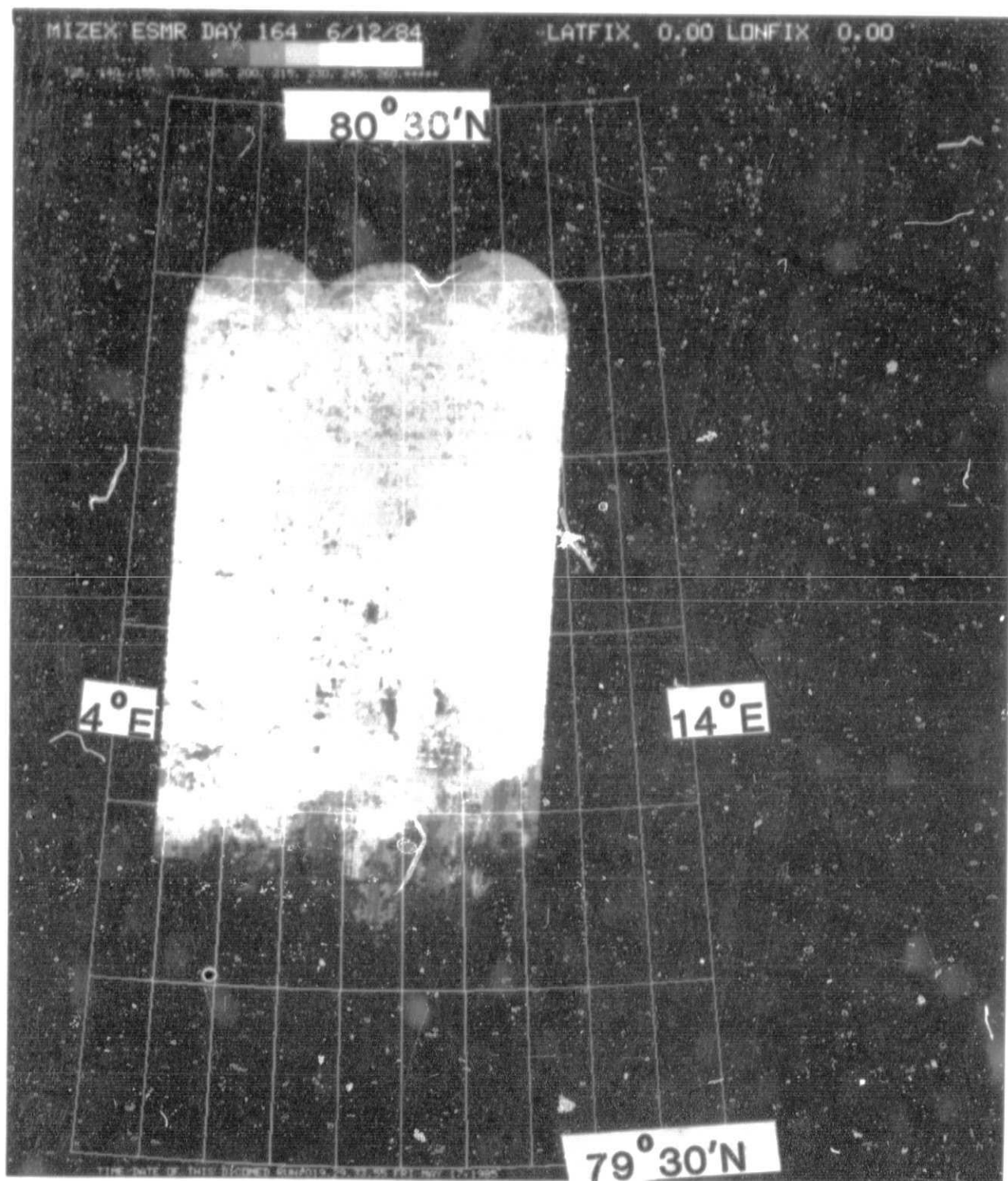


Figure 8. ESMR mosaic: 6/12

YEAR 1984 ADDAS FLIGHT LOG														
TIME	LAT	LONG	FLIGHT NO.	GRID TRUE	HEADING	DIR	HEXEX			PITCH	ROLL	TEMP		
							SPD	PRES	RAVAR			IR	AIR	
164/06/54:01	73	15.5	018	20.3	0461	009.7	022	318	32975	31638	2.4	-0.7	-11.7	-45.2
164/06/55:01	73	21.1	018	21.8	0461	009.8	022	320	32776	31692	2.4	-0.7	-11.7	-45.2
164/06/56:01	73	25.7	018	23.9	0461	009.7	023	320	32776	31692	2.4	-0.7	-11.7	-45.2
164/06/57:01	73	30.4	018	27.2	0461	010.2	024	321	32976	31692	2.4	-0.4	-15.0	-46.6
164/06/58:01	73	45.7	018	39.7	0462	010.6	020	332	32975	31625	2.1	-0.5	-13.5	-45.1
164/06/59:01	74	52.0	018	44.6	0462	010.7	020	328	32975	31607	2.2	-0.1	-11.9	-44.4
164/06/59:01	74	00.4	018	50.5	0462	010.8	020	330	32975	31582	2.2	-0.2	-12.7	-44.5
164/07/00:01	74	06.9	018	50.8	0461	010.9	020	330	32975	31576	2.3	-0.1	-3.2	-44.7
164/07/01:01	74	08.0	018	56.6	0461	010.8	022	329	32930	31571	2.2	-0.2	-3.0	-45.6
164/07/02:01	74	15.5	019	02.8	0461	010.9	021	329	32969	31558	2.2	0.1	-2.6	-45.4
164/07/03:01	74	22.3	019	08.9	0461	011.3	019	333	32974	31675	2.3	-0.2	-3.2	-45.9
164/07/04:01	74	22.9	019	08.9	0461	011.2	020	335	32975	31643	2.3	-0.2	-3.2	-45.9
164/07/05:01	74	24.0	019	10.0	0461	011.1	021	347	32975	31562	2.4	-0.4	-2.3	-44.4
164/07/06:01	74	30.5	019	15.4	0461	010.7	022	324	32976	31562	2.4	-0.4	-2.3	-44.4
164/07/07:01	74	37.1	019	15.2	0450	010.7	021	285	33029	31563	2.1	-27.7	-2.4	-44.0
164/07/08:01	74	44.2	019	12.6	0451	011.4	016	293	32987	31594	1.9	-15.0	-1.8	-44.7
164/07/09:01	74	44.2	019	12.7	0451	011.4	016	293	32987	31594	1.9	-15.0	-1.8	-44.7
164/07/10:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/11:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/12:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/13:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/14:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/15:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/16:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/17:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/18:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/19:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/20:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/21:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/22:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/23:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/24:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/25:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/26:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/27:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/28:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/29:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/30:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/31:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7
164/07/32:01	74	43.4	018	57.1	0454	015.4	015	311	32948	31558	2.5	6.5	-1.2	-44.7

100 PERCENT STRATOCUMULUS.

50 PERCENT STRATOCUMULUS AND A WELL DEVELOPED SNELL.

COMPLETED PRINT CHECK LIST AT ADDAS - ALL IS GOING FINE.
30 PERCENT STRATOCUMULUS.

07 03 59 HARE ISLAND.

CORRECTION : BEAR ISLAND.
FROM THE CLOUD IT LOOKS LIKE LOW PRESSURE AREA IS NORTHEAST OF AIRCRAFT.
0 CLOUD COVER.

WELL DEVELOPED SNELL.

HARE DATA RUN AS WE APPROACH NZ DATA ON TURNS.
DOB - LOGAN C OPERATE ONLY ON EXTENDED RANGE.

ICE IS BEING ADVECTED AROUND SOUTHERN TIP OF SOELVARD.
10 PERCENT STRATOCUMULUS.

LEAVING CLEAR AREA - 10/10 STRATOCUMULUS.

NOW - CIRROUS CLOUDS.
10/10 STRATOCUMULUS.

ALTOSTRATUS STRATUS UNDER CIRROUS, CLASSIC LOW PRESSURE SYSTEM.
INS SETTINGS.

LOGAN 77 07 EN LOG 13 55.4E.
77 31 EN 13 51.3E - INS.

HARBORAL ICE ZONE WEATHER CONDITIONS FOR THE SUPPER.

YEAR 1984 ADDAS FLIGHT LOG --- FLIGHT NO. 6 --- MIXEZ
 ---TIME--- --LAT-- --LONG-- --KIND-- --ALTITUDE--
 GRD TRUE SPD DIR PRES RADAR PITCH ROLL IR AIR

164708:00:51 01 23.1 111 07.4 0482 005.1 006 200 32965 31308 2.2 -0.1 -19.8 -36.8 LORAN C 03.5CN LON 10 39.5SE
 164708:01:01 01 24.5 01.1 09.7 0482 005.2 005 202 32959 31312 2.2 -0.2 -19.5 -37.2
 164708:01:11 01 25.1 01.1 09.7 0482 005.2 005 170 32972 31324 2.3 0.0 -16.6 -38.1
 164708:02:00 01 27.1 01.1 18.9 0482 005.5 006 159 32972 31329 2.2 0.1 -19.8 -37.7 END OF RUN THE ICE IS APPEARING DIMINISHING 90 PERCENT ICE CONCENTRATION.
 164708:02:19 01 24.7 01.1 18.9 0482 005.5 006 162 32972 31325 2.2 1.0 -19.8 -38.6 LARGE AND MEDIUM FIRST YEAR FLOES.
 164708:02:29 01 36.1 01.1 15.7 0483 006.1 010 176 32973 31331 2.3 0.1 -8.6 -37.6 CAMERAS ON.
 164708:03:01 01 40.3 01.1 19.0 0483 006.5 012 165 32993 31328 2.2 -0.2 -7.7 -38.2
 164708:03:55 01 47.6 01.1 24.0 0483 006.1 012 166 32973 31316 2.2 -0.4 -9.6 -38.4 95 PERCENT CONCENTRATION.
 164708:04:01 01 49.5 01.1 26.1 0488 006.3 011 162 32977 31329 2.5 -0.2 -9.1 -38.7
 164708:04:21 01 51.1 01.1 25.5 0488 006.3 011 158 32972 31313 2.5 -0.3 -8.2 -38.7 1/2 END OF RUN 2 TIME 03.04.20 LAT 0151.1 N LON 01126.5 E FL 329
 164708:05:01 01 56.3 01.1 18.8 0487 322.6 022 191 33019 31399 2.4 -28.7 -9.4 -39.2
 164708:05:17 01 58.5 01.0 18.5 0481 293.3 024 179 32991 31372 2.5 -28.3 -9.9 -39.1
 164708:06:21 01 52.3 01.0 12.3 0461 237.4 034 162 33060 31994 2.2 -42.6 -10.1 -38.7 LEFT SIDE OF AIRCRAFT - MEDIUM AND LARGE MULTYEAR AND FIRST YEAR FLOES.
 164708:06:42 01 55.9 01.0 15.2 0450 180.8 019 133 32832 31200 2.0 -26.4 -9.0 -39.3 95 PERCENT ICE CONCENTRATION.
 164708:08:45 01 55.9 01.0 15.2 0450 180.8 019 133 32832 31200 2.7 -5.8 -7.6 -37.9 50 PERCENT STRATOCUMULUS.
 164708:07:01 01 51.8 01.0 12.5 0450 179.0 016 137 32879 31243 2.7 -0.7 -7.6 -37.7
 164708:07:49 01 45.8 01.0 11.1 0452 182.3 013 146 32953 31205 2.5 0.9 -8.0 -37.2 *** START OF RUN 3 TIME 03.07.50 LAT 0145.6 N LON 01311.0 E FL 329
 164708:08:01 01 44.9 01.0 10.4 0453 182.9 013 148 32960 31317 2.4 0.4 -7.5 -36.9 GREASE AND THIN ICE IN POLYNIA.
 164708:08:29 01 40.8 01.0 08.2 0455 183.5 014 149 32979 31336 2.3 -0.4 -9.2 -38.1
 164708:08:55 01 37.6 01.0 06.9 0457 183.4 012 144 32972 31334 2.4 -0.7 -11.1 -38.0 CAMERAS OFF.
 164708:09:01 01 36.9 01.0 06.6 0458 183.5 013 152 32969 31319 2.4 -0.5 -10.5 -38.0
 164708:09:55 01 30.2 01.0 02.7 0461 184.1 009 148 32969 31337 2.4 -1.0 -17.5 -38.7 10/10 STRATOCUMULUS.
 164708:10:01 01 27.2 01.0 02.5 0460 184.0 010 151 32972 31336 2.4 -0.5 -17.2 -37.8
 164708:11:01 01 24.7 01.0 02.2 0461 184.4 009 179 32979 31336 2.2 -0.7 -19.7 -37.8
 164708:12:01 01 14.1 00.9 54.5 0463 184.4 009 188 32968 31311 2.3 -0.5 -18.4 -37.0
 164708:13:01 01 06.1 00.9 50.6 0466 184.5 012 185 32969 31316 2.2 -0.9 -16.8 -37.6
 164708:13:27 01 02.9 00.9 48.9 0465 183.9 013 192 32972 31338 2.2 -0.1 -15.5 -36.0
 164708:14:01 01 02.9 00.9 47.2 0467 184.6 012 208 32990 31301 1.9 0.9 -14.9 -38.9 2 STAGE HYGROMETER IN BALANCE CHECK.
 164708:15:01 01 02.9 00.9 43.6 0469 184.7 019 191 32984 31273 1.6 -0.8 -15.4 -38.2 10/10 STRATOCUMULUS.
 164708:16:01 01 02.8 00.9 39.8 0469 184.4 019 181 32982 31268 1.8 -0.9 -15.8 -39.6
 164708:16:17 01 00.9 00.9 38.7 0468 184.3 017 188 32959 31261 2.1 -0.9 -15.7 -39.5 FRONT OF AIRCRAFT CAN SEE FRACTURED ICE.
 164708:16:59 01 35.4 00.9 36.4 0467 184.2 018 188 32950 31289 1.9 -0.6 -13.0 -40.4 CAMERAS ON.
 164708:17:01 01 35.3 00.9 36.3 0467 184.2 017 188 32950 31295 1.9 -0.9 -13.6 -38.7
 164708:18:22 01 00.0 00.0 00.0 000 00.0 000 000 32962 31286 2.0 -0.6 -8.4 -41.0
 164708:19:00 01 00.0 00.0 00.0 000 00.0 000 000 32973 31295 2.0 -0.8 -15.1 -39.8
 164708:19:18 01 15.7 00.9 28.7 0465 183.8 015 184 32965 31293 2.1 0.7 -16.2 -38.5 70 PERCENT ICE CONCENTRATION 03 19 CD.
 164708:19:33 01 17.7 00.9 28.0 0464 184.0 015 189 32969 31271 2.0 -0.7 -19.3 -38.1 AVOID INCREASE IN ICE CONCENTRATION.
 164708:19:50 01 12.3 00.9 27.3 0464 183.9 015 189 32962 31301 2.0 -0.7 -9.7 -39.6 SUN GLINTZ POLYNIA - RUN ICE OR GREASE ICE 03 18 CD.
 164708:20:00 01 12.3 00.9 27.0 0464 183.8 015 184 32962 31288 2.0 -0.7 -9.7 -39.6
 164708:20:02 01 12.0 00.9 26.6 0464 183.8 015 184 32965 31294 2.0 -0.7 -10.7 -39.7 ADDAS DOWN 03 17 15 BACK UP 03 18 30.
 164708:20:18 01 09.8 00.9 25.9 0464 183.9 015 184 32967 31311 2.1 -0.5 -9.2 -39.3 07 17 15 80 PERCENT ICE CONCENTRATION IN FRACTURED ICE ZONE.
 164708:20:50 01 05.9 00.9 24.4 0464 183.6 013 177 32958 31311 2.1 -0.7 -8.7 -40.2 ICE CONCENTRATION 10 PERCENT.
 164708:21:00 01 04.6 00.9 24.1 0464 183.6 013 177 32966 31364 2.2 -0.7 -8.9 -40.1 DISBURSED ICE AREA.
 164708:21:02 01 02.8 00.9 24.3 0465 183.6 012 174 32968 31359 2.0 -0.7 -9.9 -40.3
 164708:21:12 01 02.8 00.9 23.6 0465 183.6 012 174 32968 31352 2.2 -0.6 -15.5 -40.9 SUN GLINTZ APPEARS POLYNIA ARE FULL OF ICE.
 164708:21:18 01 00.9 00.9 22.6 0465 183.6 012 176 32967 31327 2.0 -0.6 -11.2 -40.1 50 PERCENT STRATOCUMULUS AND HAZE.
 164708:21:48 01 58.2 00.9 21.4 0465 183.8 013 179 32966 31345 2.0 -0.9 -11.2 -40.2 POLYNIA C - AT THIS POSITION HE CAN ONLY PICK UP 2 STATION ON THIS NET.
 164708:21:58 01 57.3 00.9 21.0 0466 183.8 013 179 32966 31345 2.0 -0.9 -11.2 -40.2
 164708:22:00 01 57.0 00.9 21.0 0466 183.8 013 185 32968 31319 2.1 -0.7 -11.5 -39.3 98SD.
 164708:22:16 01 54.8 00.9 20.0 0466 183.7 010 185 32968 31357 2.1 -0.5 -11.8 -39.8 SAME LAT AND LON AS THE END OF THIS RUN.
 164708:22:18 01 54.7 00.9 20.2 0466 183.7 010 185 32957 31364 2.2 -0.9 -13.1 -39.9 PLUMES.
 164708:23:00 01 49.0 00.9 16.8 0466 183.7 010 178 32958 31365 2.1 1.8 -12.4 -39.1
 164708:23:16 01 46.9 00.9 16.1 0460 201.9 015 237 33105 31365 2.0 1.6 36.9 -9.4 39.0 STRATOCUMULUS AT THE END OF RUN 3 50 PERCENT.
 164708:23:56 01 43.9 00.8 55.0 0458 262.4 009 285 32993 31458 2.0 3.6 36.6 -13.4 38.7 MAKE DATA RUN AT END OF RUN 3.
 164708:24:00 01 43.9 00.8 55.0 0458 262.4 010 303 33027 31464 2.0 3.6 36.8 -14.4 40.7
 164708:24:10 01 43.9 00.8 50.4 0457 275.9 010 316 33026 31470 2.0 3.0 36.4 -16.0 38.6 CONNECTION: RUN 3.
 164708:24:12 01 44.2 00.8 48.4 0457 281.0 009 327 32994 31459 2.2 26.6 -34.7 -41.0 CONNECTION: CAMERA OFF.
 164708:24:20 01 44.6 00.8 39.3 0457 303.8 007 346 33031 31469 2.2 26.6 -34.7 -41.0 CONNECTION: CAMERA OFF.
 164708:24:42 01 46.8 00.8 30.2 0457 347.5 004 083 33011 31452 2.2 36.4 -21.9 -39.9 CONNECTION: CONNECTION ABOVE.
 164708:25:00 01 49.0 00.8 28.5 0463 356.1 006 245 32872 31290 2.5 0.5 -21.6 -39.7 ICE LANDINGS NET 99SD-CAN PICK UP MASTER ABOUT 99 PERCENT.

YEAR 1984 AERIAL FLIGHT LOG --- FLIGHT NO. 6 --- MI-ZEX
 ---TIME--- ---LAT--- ---LONG--- ---MODE--- ---ALTITUDE--- ---TEMP---
 ---TRK--- ---EPR HEAD --- SPD --- DIR --- PRES --- RAULG --- IR --- AIR

164/09:21:01 81 33.0 005 31.5 0469 179.9 007 170 32967 31297 2.0 -0.6 -15.5 -35.5
 164/09:21:15 81 31.6 005 31.5 0469 179.9 007 170 32967 31297 2.0 -0.5 -15.5 -36.9
 164/09:22:01 81 31.5 005 31.5 0470 180.1 003 189 32972 31282 1.9 0.0 -19.9 -36.2
 164/09:23:01 81 17.6 005 31.6 0470 180.4 007 207 32973 31306 1.9 0.0 -13.1 -36.6
 164/09:23:11 81 15.3 005 31.5 0471 180.4 007 199 32969 31286 1.9 -0.2 -15.1 -38.6

164/09:23:21 81 15.1 005 31.9 0471 180.4 006 197 32970 31300 1.9 -0.2 -14.9 -38.4
 164/09:23:39 81 12.7 005 31.8 0471 180.5 009 209 32972 31287 1.7 -0.2 -14.2 -39.2
 164/09:24:01 81 11.1 005 31.8 0471 180.4 003 215 32976 31284 1.7 -0.2 -14.2 -39.8
 164/09:24:11 81 11.1 005 31.8 0471 180.4 003 215 32976 31284 1.7 -0.2 -14.2 -39.8
 164/09:24:23 81 06.8 005 31.9 0472 180.7 010 229 32970 31283 1.6 -0.2 -14.0 -39.0
 164/09:24:33 81 06.8 005 31.9 0472 180.7 010 229 32970 31283 1.6 -0.2 -14.0 -39.0
 164/09:24:53 81 05.0 005 31.5 0472 180.6 009 222 32975 31285 1.8 -0.7 -9.8 -37.2
 164/09:25:03 81 05.0 005 31.5 0472 180.6 009 222 32975 31285 1.8 -0.7 -9.8 -37.2
 164/09:25:11 81 05.0 005 31.5 0472 180.6 009 222 32975 31285 1.8 -0.7 -9.8 -37.2
 164/09:25:19 81 05.0 005 31.5 0472 180.6 009 222 32975 31285 1.8 -0.7 -9.8 -37.2
 164/09:25:59 81 04.8 005 31.8 0474 180.8 008 215 32971 31290 1.8 0.1 -11.4 -37.2
 164/09:26:11 81 04.8 005 31.8 0474 180.8 008 215 32971 31290 1.8 0.1 -11.4 -37.2
 164/09:26:19 81 04.8 005 31.8 0474 180.8 008 215 32971 31290 1.8 0.1 -11.4 -37.2
 164/09:26:59 81 04.7 005 31.8 0474 180.9 013 230 32968 31283 1.8 0.0 -11.2 -36.4
 164/09:27:01 81 04.7 005 31.8 0474 180.9 013 230 32968 31283 1.8 0.0 -11.2 -36.4

164/09:27:11 81 04.6 005 31.8 0474 180.9 011 225 32967 31261 1.8 -0.1 -8.0 -37.7
 164/09:28:01 81 03.3 005 31.8 0474 180.9 014 211 32979 31266 1.8 -0.7 -10.4 -37.5
 164/09:28:17 81 03.3 005 31.8 0474 180.9 014 211 32979 31266 1.8 -0.7 -10.4 -37.5
 164/09:28:37 81 03.6 005 31.6 0474 180.5 012 210 32969 31276 1.7 0.3 -9.8 -38.0
 164/09:29:01 81 03.6 005 31.6 0474 180.5 012 210 32969 31276 1.7 0.3 -9.8 -38.0
 164/09:29:03 81 03.0 005 32.0 0474 180.5 012 210 32968 31259 1.8 0.2 -8.5 -37.9
 164/09:29:10 81 03.0 005 32.0 0474 180.5 012 210 32968 31259 1.8 0.2 -8.5 -37.9
 164/09:29:37 81 25.7 005 31.9 0474 181.0 014 223 32962 31263 1.6 0.0 -12.3 -38.1
 164/09:29:53 81 25.7 005 31.9 0474 181.0 014 223 32962 31263 1.6 0.0 -12.3 -38.1
 164/09:30:01 81 22.5 005 31.6 0474 181.1 013 224 32965 31278 1.8 -0.1 -9.6 -38.6
 164/09:30:10 81 22.5 005 31.6 0474 181.1 013 224 32965 31278 1.8 -0.1 -9.6 -38.6
 164/09:30:15 81 20.2 005 32.1 0474 181.0 010 232 32966 31274 1.9 0.0 -15.1 -39.1
 164/09:30:33 81 18.2 005 31.6 0474 181.0 012 230 32968 31272 1.8 -0.2 -20.0 -38.5
 164/09:31:01 81 18.2 005 31.6 0474 181.0 012 230 32968 31272 1.8 -0.2 -20.0 -38.5
 164/09:31:15 81 18.2 005 31.6 0474 181.1 011 229 32969 31279 1.6 -0.5 -17.8 -40.2
 164/09:31:37 81 18.2 005 31.6 0474 181.1 011 229 32969 31279 1.6 -0.5 -17.8 -40.2
 164/09:31:59 81 07.1 005 31.8 0474 180.7 008 229 32969 31335 1.7 0.1 -18.3 -38.0

164/09:32:01 81 07.0 005 31.9 0474 180.8 007 231 32967 31326 1.8 -0.2 -17.4 -37.7
 164/09:33:01 79 59.9 005 31.8 0475 180.5 009 230 32969 31315 1.6 -0.3 -21.6 -39.5
 164/09:33:07 79 59.3 005 31.8 0475 180.8 012 220 32962 31301 2.4 -0.6 -21.6 -38.4
 164/09:33:57 79 54.3 005 36.9 0478 158.5 007 249 32961 31305 1.7 -13.7 -21.9 -38.6
 164/09:34:01 79 51.6 005 45.7 0481 147.9 006 267 32958 31323 1.7 -4.6 -14.0 -39.6
 164/09:34:11 79 50.6 005 50.2 0482 146.2 006 267 32961 31350 1.6 -5.0 -20.9 -39.5
 164/09:35:01 79 36.4 006 37.6 0483 145.1 004 238 32967 31326 1.8 0.1 -17.4 -37.8
 164/09:35:01 79 36.4 006 37.6 0483 145.1 004 238 32967 31326 1.8 0.1 -17.4 -37.8
 164/09:35:01 79 36.4 006 37.6 0483 145.1 004 238 32967 31326 1.8 0.1 -17.4 -37.8
 164/09:35:01 79 25.2 007 26.6 0484 146.7 004 244 32969 31340 1.7 -0.4 -22.0 -38.4
 164/09:39:01 79 48.4 007 51.4 0483 147.3 006 236 32967 31333 1.8 -0.2 -11.9 -38.2
 164/09:40:01 79 41.7 008 46.8 0482 147.3 006 277 32966 31350 1.4 0.0 -15.6 -41.2
 164/09:44:01 79 05.2 008 37.7 0483 148.5 009 258 32966 31348 1.7 0.4 -9.6 -40.5
 164/09:42:01 78 31.6 009 28.0 0485 148.1 008 226 32968 31369 1.6 -0.4 -8.2 -40.6
 164/09:44:01 78 44.8 009 44.8 0485 149.9 010 210 32971 31371 1.6 0.0 -3.1 -42.3
 164/09:44:01 78 37.7 010 06.6 0482 149.9 012 210 32967 31365 1.6 0.2 -3.1 -42.3
 164/09:44:01 78 30.9 010 27.4 0479 150.5 014 204 32967 31376 1.7 0.1 -5.8 -40.7
 164/09:47:01 78 24.3 010 47.2 0477 150.7 012 206 32972 31379 1.6 0.1 -6.9 -41.6
 164/09:48:01 78 17.2 011 07.4 0476 150.8 011 201 32971 31369 1.6 0.2 -6.2 -42.8
 164/09:49:01 78 03.5 011 26.3 0476 151.0 009 245 32967 31394 1.6 -0.1 -6.7 -41.9
 164/09:50:01 78 03.5 011 45.1 0473 151.0 010 216 32966 31402 1.7 -0.2 -9.5 -41.7
 164/09:52:01 77 09.9 012 28.3 0473 151.5 009 229 32965 31416 1.8 0.1 -7.2 -43.2
 164/09:55:01 77 43.2 012 40.2 0472 152.2 009 229 32968 31455 1.8 0.4 -10.7 -43.8
 164/09:55:01 77 43.2 012 40.2 0472 152.2 009 229 32968 31455 1.9 1.0 -20.4 -42.8

70 PERCENT STRATOCUMULUS.
 CAMERA ON AT 23 02.
 CORRECTION - 09 23 02.
 SOME OF THE PLUMES HAVE OPEN WATER.
 3/20 STRATOCUMULUS.
 LARGE MULTY-YEAR AND MEDIUM FIRST-YEAR FLICES.
 CLOUD COVER 50 PERCENT STRATOCUMULUS.
 PLUMES APPEAR TO HAVE SOME OPEN WATER.
 OPEN WATER IS MAINLY IN THE LARGE PLUMES.
 SIZE OF THE MULTY-YEAR FLICES IS DECREASING.
 ICE CONCENTRATION 85 PERCENT.
 DURING THE HARDY WASSER THE CLOUD COVER HAS BEEN INCREASING IN
 THE SOUTH END OF THE HIZERB RUN.
 ICE CONCENTRATION 85 PERCENT.
 EDGE OF MAIN PACK ENTERING FRACTURED ZONE.
 ICE CONCENTRATION 85 PERCENT.
 RAPID DECREASE IN ICE CONCENTRATION IN FRACTURED ICE
 25 PERCENT ICE CONCENTRATION.
 FRACTURED ICE ZONE IS GREATLY DISCUSSED.
 NO PRIME STRUCTURE REMAIN DISCUSSED.
 09 30 00 DWS CO 22.71 LOW 5. 31.5E.
 LOWER C. 79 53. ON LOW 5 08.0E.
 LIQUID COVER 9710 STRATOCUMULUS.
 ICE CONCENTRATION 40 PERCENT.
 III END OF RUN 7 TIME 09.33.06 LAT 79S-2 N LOW C-51.8 E FL 529
 CAMERAS OFF.
 AT END OF THE RUN SOME PRIME STRUCTURES WITH EAST NEST STRUCTURE.

ORIGINAL PAGE IS
OF POOR QUALITY

YEAR 1984 ADDAS FLIGHT LOG --- FLIGHT NO. 6 --- MIKEX
 ---TIME--- --LAT-- --LONG-- SPD TRUE SPD HEAD SPD OVR SPD OVR ALTITUDE--- ALTITUDE--- --TEMP--
 ---IR--- PITCH ROLL IR AIR

164/09:54:01 77 36.2 012 58.2 0473 152.5 003 293 32976 31462 1.3 0.4 -26.6 -44.2
 164/09:55:01 77 29.3 013 15.1 0475 153.1 010 256 32969 31446 1.8 -0.2 -19.8 -44.9
 164/09:56:01 77 22.4 013 15.1 0477 153.4 007 297 32976 31449 1.5 0.3 -18.3 -43.9
 164/09:57:01 77 15.4 014 13.7 0480 153.3 009 273 32950 31972 1.6 -0.4 -18.9 -44.7
 164/09:58:29 77 04.8 014 13.7 0480 153.3 008 238 31216 61262 1.6 1.6 -18.5 -44.6
 164/09:59:23 00 09.0 000 00.0 0000 000.0 000 000 32974 31451 1.6 0.1 -12.4 -45.2
 164/10:00:01 76 27.9 016 24.9 0482 154.4 010 253 32966 31479 1.6 0.2 -15.9 -46.2
 164/10:01:01 76 19.7 012 23.9 0482 154.4 009 253 32964 31469 1.6 -0.3 -17.1 -44.2
 164/10:03:01 76 32.5 012 23.9 0479 154.7 007 275 32964 31509 1.7 -0.2 -18.1 -44.9
 164/10:04:01 76 25.3 015 23.9 0478 154.7 011 295 32960 31545 1.8 0.0 -14.6 -45.7
 164/10:05:01 76 18.4 015 23.2 0478 155.0 003 301 32972 31527 1.8 0.0 -11.0 -45.7
 164/10:06:01 76 11.5 016 07.7 0478 155.2 003 302 32970 31526 1.6 -0.2 -11.7 -46.4
 164/10:07:01 76 04.0 016 22.1 0478 155.3 003 294 32975 31520 1.7 -0.3 -2.8 -45.5
 164/10:08:01 75 57.0 016 35.7 0478 155.9 005 206 32964 31518 1.7 0.0 0.7 -44.8
 164/10:09:01 75 49.8 016 49.0 0478 155.7 007 293 32972 31550 1.5 0.2 -1.0 -44.8
 164/10:10:01 75 42.4 017 03.2 0478 156.2 007 271 32972 31526 1.6 0.0 2.5 -45.6
 164/10:11:01 75 35.3 017 16.2 0478 156.2 006 290 32971 31551 1.3 0.0 -1.9 -44.2
 164/10:12:01 75 28.0 017 28.1 0479 156.5 009 283 32964 31536 1.6 0.0 -1.1 -44.7
 164/10:13:01 75 20.6 017 42.0 0479 156.8 008 293 32975 31527 1.6 0.0 -1.5 -45.9
 164/10:14:01 75 13.4 017 54.0 0479 156.8 006 291 32977 31531 1.6 -0.1 -0.3 -46.4
 164/10:15:01 75 06.7 018 19.2 0478 157.2 004 291 32962 31553 1.7 0.0 -0.2 -46.4
 164/10:16:01 74 51.7 018 31.1 0473 157.2 004 291 32964 31543 1.7 -0.1 0.8 -44.1
 164/10:17:07 74 50.9 018 32.1 0473 157.2 005 296 32960 31530 1.7 0.0 1.0 -45.9
 164/10:17:23 74 49.1 018 35.4 0473 156.3 004 291 32966 31555 1.6 -2.0 1.2 -45.7
 164/10:17:29 74 48.2 018 36.8 0473 155.7 005 286 32955 31545 1.9 -2.5 0.8 -44.4
 164/10:18:01 74 44.5 018 43.4 0472 151.9 005 296 32962 31558 1.7 -4.1 0.8 -45.8
 164/10:19:01 74 37.6 018 59.6 0471 153.8 003 300 32962 31562 1.9 0.5 2.2 -44.8
 164/10:20:01 74 30.7 018 12.1 0469 152.8 002 319 32978 31452 1.7 -0.5 4.0 -45.3
 164/10:20:25 74 28.1 019 17.0 0464 165.5 003 269 33043 31431 1.9 30.4 -2.0 -45.7
 164/10:21:01 74 23.7 019 23.4 0464 165.5 003 255 32946 31539 1.8 6.0 -1.9 -46.1
 164/10:22:01 74 16.4 019 04.9 0459 205.4 007 244 32968 31576 1.8 1.2 -3.2 -44.4
 164/10:23:01 74 07.0 018 04.9 0459 205.2 005 265 32964 31606 1.9 1.0 -3.1 -46.3
 164/10:24:01 74 00.1 018 36.4 0459 208.2 006 279 32969 31616 1.8 0.0 -7.1 -45.0
 164/10:25:01 73 53.1 018 25.5 0460 205.0 006 291 32963 31605 1.7 -5.4 1.9 -46.7
 164/10:26:01 73 45.9 018 16.6 0463 197.8 007 294 32967 31631 1.7 -0.5 -10.3 -47.1
 164/10:27:01 73 38.6 018 09.7 0464 197.2 010 286 32970 31630 1.7 0.2 1.6 -46.3
 164/10:28:01 73 31.1 018 01.4 0465 196.8 008 283 32968 31615 1.7 0.2 1.8 -45.0
 164/10:29:01 73 23.7 017 58.9 0465 197.1 010 284 32965 31620 1.8 -0.2 1.4 -45.6
 164/10:30:01 73 16.4 017 46.8 0466 197.3 013 295 32956 31653 2.1 -0.2 2.3 -46.6
 164/10:31:01 72 09.7 017 32.3 0466 197.0 011 290 32971 31654 1.7 0.0 2.5 -46.2
 164/10:32:01 72 01.3 017 25.4 0467 196.9 013 292 32975 31652 1.6 0.0 -2.4 -46.4
 164/10:33:01 72 51.9 017 18.3 0467 196.9 013 292 32975 31652 1.6 0.0 -2.4 -46.4
 164/10:34:01 72 46.3 017 18.3 0467 196.9 013 292 32975 31652 1.6 0.0 -2.4 -46.4
 164/10:34:57 72 39.4 017 12.0 0467 196.7 012 293 32966 31642 1.7 -0.3 1.2 -45.6
 164/10:35:01 72 39.0 017 11.5 0467 196.7 013 303 32972 31678 1.7 0.0 1.5 -45.4
 164/10:36:01 72 31.5 017 08.7 0469 197.0 016 285 32968 31659 1.8 0.1 -7.6 -46.5
 164/10:37:01 72 23.9 016 59.1 0469 196.7 015 283 32977 31701 1.7 0.0 -13.9 -45.7
 164/10:38:01 72 16.3 016 51.2 0470 196.6 015 301 32966 31681 1.8 0.1 2.7 -45.0
 164/10:39:01 72 09.0 016 44.8 0470 196.6 015 293 32965 31672 1.6 0.0 -9.4 -46.9
 164/10:40:01 72 01.2 016 38.2 0470 196.2 017 309 32955 31659 1.7 0.0 -9.0 -46.9
 164/10:41:01 71 51.7 016 31.9 0470 196.4 016 296 32969 31703 1.7 0.1 0.8 -46.3
 164/10:42:01 71 46.2 016 25.9 0470 196.4 016 294 32967 31718 1.7 0.1 2.6 -45.8
 164/10:43:01 71 39.6 016 19.6 0470 196.1 015 301 32965 31716 1.6 0.2 -6.1 -45.3
 164/10:44:01 71 31.1 016 13.6 0470 196.2 016 309 32972 31718 1.6 -0.2 -6.1 -46.5
 164/10:45:01 71 23.2 016 10.2 0470 196.2 016 302 32968 31762 1.6 -0.3 0.1 -45.3
 164/10:45:01 71 26.6 016 10.2 0470 196.2 016 302 32976 31747 1.6 -0.4 -4.6 -45.6
 164/10:45:09 71 22.3 016 06.8 0470 196.2 018 300 32967 31715 1.6 0.0 -6.3 -44.2

AIN - STARTED WAKE DATA RUN 10 09 CO PATCHES OF OCCASIONAL CLOUD.

ZERO CLOUD COVER.
 IMMEDIATE SELL.

JUST PASSED OVER BEAR ISLAND.

OCEAN SEEMS TO BE CALM, SELLS CUT NO WHITE CAPS.

10 43 28 IRS - 71 34.8N LOI 16 16.5E.
 10 43 28 IRS - 71 51.6N LOI 16 16.5E.

BACK ON EXTENDED RANGE USING KREWEIGER NET.

YEAR 1984 ADDAS FLIGHT LOGS --- FLIGHT NO. 6 --- INDEX
 ---TIME--- --LAT-- --LC3-- --HDG-- --ALTITUDE-- --TEMP--
 GRID YRLE --MAG-- --ALTY--
 SPD HEAD SPD DIR PRES RADAR PITCH EOLL IR AIR

164/10-45:01 71 15.8 016 01.8 0471 146.3 018 293 32970 31732 1.6 0.0 -11.4 -47.2
 164/10-46:01 71 00.2 018 01.0 0472 195.9 018 303 32969 31723 1.7 0.1 -10.1 -45.0
 164/10-47:01 71 00.2 018 01.0 0473 180.9 020 307 32971 31774 1.6 -4.7 -12.0 -45.0
 164/10-48:01 71 00.2 018 01.0 0474 180.6 021 302 32974 31762 1.5 0.3 -11.9 -44.9
 164/10-50:01 70 44.6 015 53.4 0401 180.4 021 305 32577 31337 -0.1 -0.4 -12.0 -46.9
 164/10-51:01 70 36.9 015 54.0 0472 181.2 024 300 31101 30035 0.0 1.2 -15.4 -49.2
 164/10-52:01 70 20.0 015 54.6 0465 181.6 024 298 29337 30035 -1.7 0.2 -10.5 -47.4
 164/10-53:01 70 21.2 015 55.2 0460 181.8 024 299 29729 29893 -1.7 0.2 -10.5 -47.4
 164/10-54:01 70 11.6 015 55.6 0452 182.2 031 299 24665 23737 -1.6 0.0 -7.9 -42.9
 164/10-55:01 70 05.1 015 56.5 0441 181.9 030 306 22544 21764 -1.3 0.0 -4.4 -37.5
 164/10-56:01 69 54.2 015 56.8 0424 182.1 027 298 20744 19594 -1.1 0.2 4.1 -33.0
 164/10-57:01 69 52.1 015 57.4 0414 183.0 030 300 19599 19274 1.3 0.5 5.7 -32.3
 164/10-58:01 69 45.2 015 57.2 0420 157.6 023 299 20042 19364 0.8-20.8 5.0 -31.8
 164/10-59:01 69 32.1 015 58.2 0402 194.2 032 296 20012 19327 2.0 30.5 4.1 -30.1
 164/11-00:01 69 35.4 015 58.4 0370 257.2 034 292 19971 19287 1.3 -0.5 6.1 -31.1
 164/11-01:01 69 35.2 015 52.4 0370 257.1 032 292 19971 19291 1.3 -0.5 6.1 -30.5
 164/11-02:01 69 31.2 015 42.1 0409 178.7 026 294 19933 19291 1.2 -0.9 -7.7 -30.9
 164/11-03:01 69 34.5 015 42.3 0403 183.0 027 291 19933 19315 1.2 -0.9 -7.7 -30.9
 164/11-04:01 69 19.0 015 42.5 0410 180.9 026 291 19939 19319 1.2 -0.9 -7.7 -30.9
 164/11-05:01 69 17.8 015 42.5 0410 183.0 026 291 19996 19324 1.2 0.9 -8.2 -31.2
 164/11-06:01 69 10.8 015 42.9 0410 181.7 027 292 19999 19345 1.2 0.2 -6.7 -30.0
 164/11-07:01 69 04.0 015 43.7 0410 181.6 026 295 19999 19241 1.2 0.0 -5.7 -31.7
 164/11-08:01 69 57.3 015 44.2 0410 181.4 026 295 19999 19246 1.2 0.1 -6.8 -30.8
 164/11-09:01 69 56.0 015 44.6 0410 181.4 026 295 19999 19333 1.3 0.3 -6.6 -30.9
 164/11-10:01 69 55.7 015 44.6 0410 181.4 025 285 19999 19328 1.0 0.2 -6.3 -30.8
 164/11-11:01 69 55.4 015 44.9 0410 181.3 026 289 19999 19241 1.2 0.1 -5.1 -29.9
 164/11-12:01 69 42.1 015 42.1 0411 181.3 026 289 19999 17441 1.1 0.1 -7.8 -31.3
 164/11-13:01 69 44.2 015 42.1 0411 181.3 026 289 19999 18493 1.1 0.1 -7.8 -31.3
 164/11-14:01 69 44.2 015 42.1 0411 181.3 026 289 19999 18493 1.1 0.1 -7.8 -31.3
 164/11-15:01 69 30.0 015 59.9 0455 139.3 028 293 19399 18724 0.2 18.7 -11.7 -29.4
 164/11-16:01 69 35.9 016 15.4 0331 042.1 039 299 20534 18797 -17.9 13.8 -13.5 -33.4
 164/11-17:01 69 00.0 016 00.0 040 040 000 000 14342 15978 -1.4 -4.2 -13.1 -18.2
 164/11-18:01 69 30.7 016 34.8 0312 171.9 027 264 16271 13676 -1.1 -7.0 -12.6 -18.6
 164/11-19:01 69 25.9 016 40.8 0275 175.0 031 247 11871 11512 4.4 9.4 -11.3 -14.3
 164/11-20:01 69 23.7 016 54.6 0215 268.7 023 259 11192 10532 0.5 13.4 -10.2 -13.8
 164/11-21:01 69 23.7 016 24.4 0231 265.5 022 241 9610 8344 2.4 10.0 -9.8 -11.1
 164/11-22:01 69 22.9 016 16.5 0223 265.5 020 246 6553 6504 1.7 -0.1 -7.6 -0.4
 164/11-23:01 69 22.3 016 05.0 0207 294.3 015 256 7977 7770 3.7 25.4 -2.9 -8.6
 164/11-24:01 69 27.5 016 16.2 0223 054.9 015 237 7074 6977 3.1 -4.0 -0.5 -6.1
 164/11-25:01 69 29.4 016 22.1 0217 059.3 019 239 5893 4959 5.7 -0.1 -1.1 -5.2
 164/11-26:01 69 31.3 016 31.1 0206 041.7 012 235 5307 5457 3.9 0.0 -0.5 -4.2
 164/11-27:01 69 32.9 016 38.3 0183 038.0 015 249 5301 5301 4.8 1.7 -0.8 -4.2
 164/11-28:01 69 35.7 016 39.6 0189 352.7 014 224 5736 4693 2.1 -9.7 4.6 -3.4
 164/11-29:01 69 30.7 016 37.3 0180 341.1 023 247 4942 4934 0.0 2.2 -1.3 -3.9
 164/11-30:01 69 41.3 016 38.0 0184 093.0 015 215 3435 3364 1.2 20.0 5.9 -2.0
 164/11-31:01 69 39.4 016 41.0 0145 150.3 011 214 2939 2939 3.9 -4.7 9.2 -0.2
 164/11-32:01 69 36.9 016 40.7 0146 169.7 013 200 2534 2272 5.1 0.0 10.9 1.4
 164/11-33:01 69 34.6 016 40.7 0145 178.4 014 181 2543 2119 4.4 0.4 10.9 2.5
 164/11-34:01 69 32.3 016 41.0 0145 177.3 012 170 1653 1521 -0.5 0.6 9.3 -0.5
 164/11-35:01 69 29.9 016 41.3 0146 174.9 026 136 605 333 -0.4 1.7 9.9 6.1

LAT 6919.0 N LON 01542.5 E FL 199
 TYPE 11.02-50
 CAMERA ON - INDIR 3 CHY.
 TYPE 11.06-34
 CAMERA ON - LEFT SIDE UPPER AIRCRAFT.
 TYPE 11.06-34
 CAMERA ON - LEFT SIDE LOWER AIRCRAFT.
 TYPE 11.06-34

3.4 Third data flight—Day 170—Evenes RT

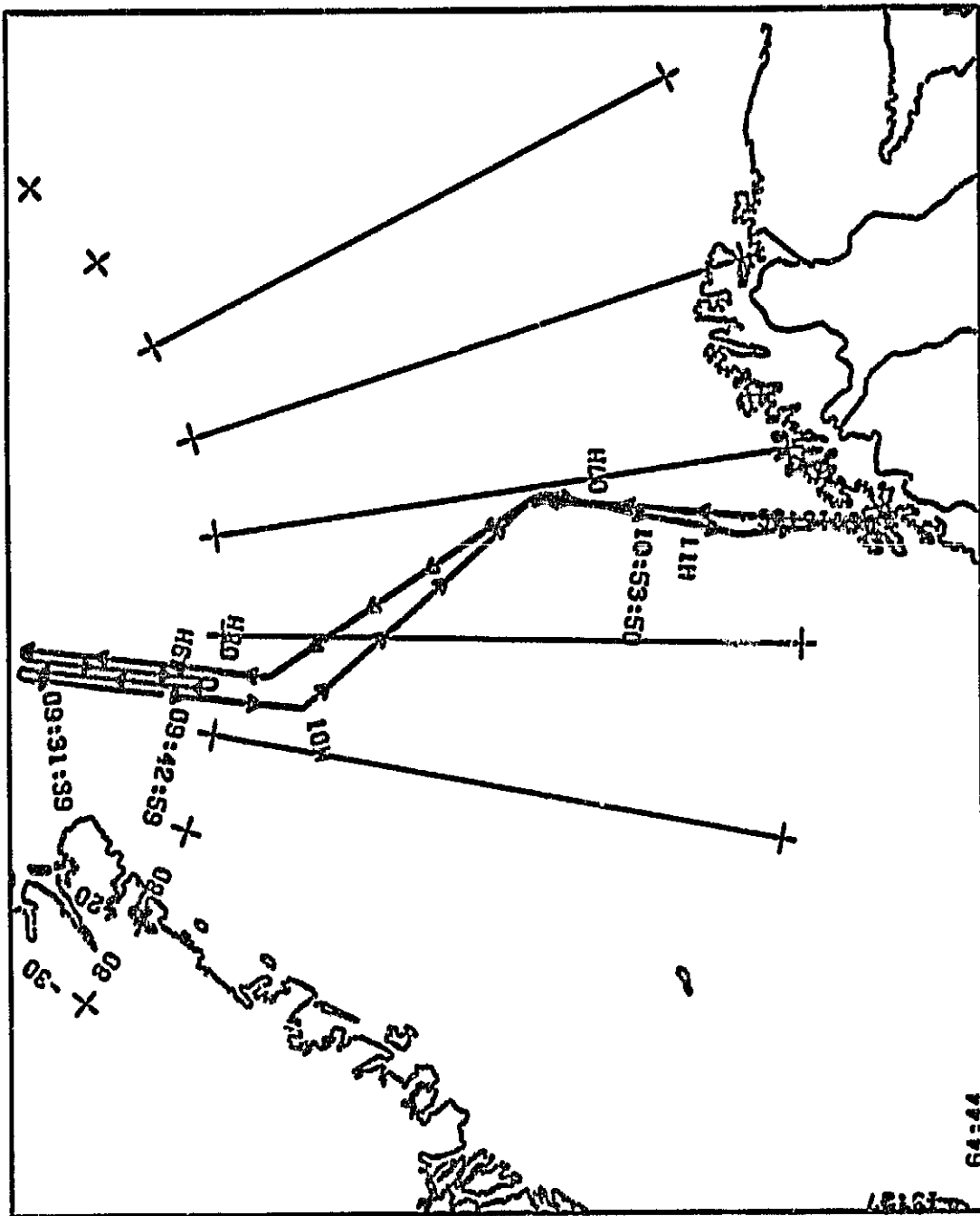
All instruments were operational.

In spite of the fact that our replacement spoiler was delivered late Sunday evening rather than in the morning as scheduled because SAS bumped that cargo at Oslo in favor of a shipment of flowers, our stalwart ground crew completed the repairs in time for today's flight.

On the basis of weather predictions from Tromso, we elected to fly Pattern 'E', the four-leg pattern extending about 350 Km north of the ice edge in the hopes of realizing below-freezing conditions over the entire mosaic. Instead, we found freezing conditions in the MIZEX box and near-melt conditions further north! This was coupled with observations of scattered ice-clouds over MIZEX and heavy clouds north of there. If we were to try another Pattern 'E', we should want to make sure that clear conditions are firmly forecast or observed over the entire area.

Our pattern was situated such that the projected position of the Polarqueen would have been directly underneath us on the third leg of the pattern; her updated position as of 1500 GMT received just prior to takeoff placed her between legs 3 & 4.

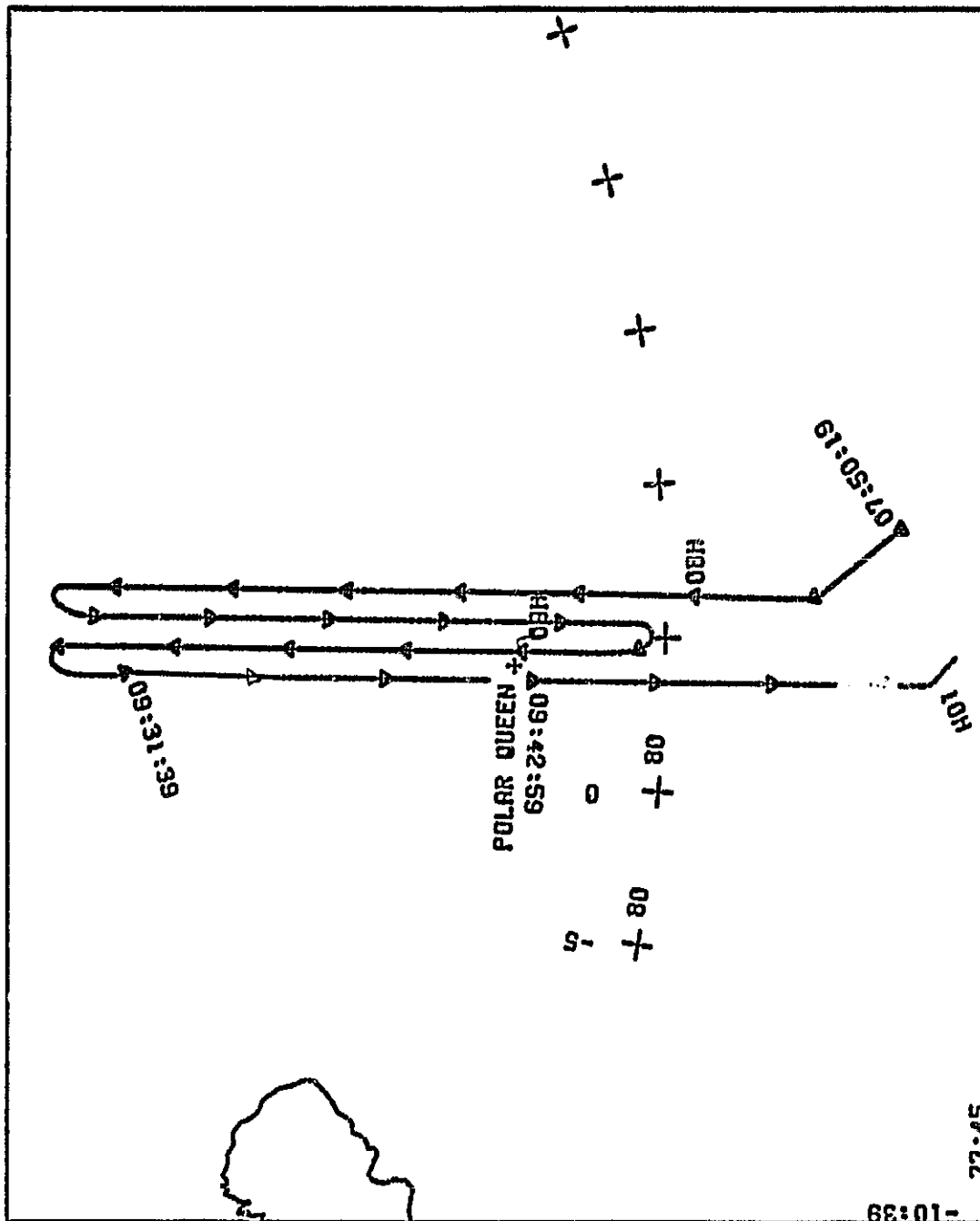
We were startled to find the sea ice extending some 110 Km south of the edge as observed on the first leg; possibly we were observing part of an eddy. This information was radioed to the Polarqueen as we departed the area.



RT 6/16
 JUN 18 1984
 FLT 07
 EYES LOCAL
 01:18:45 TO 11:28:59 UT
 SCALE = 1:13-125:68
 TIME TICS EVERY 10.00 SECONDS

Figure 9. Flight tracks: Evenes RT 6/16

ORIGINAL PAGE IS
OF POOR QUALITY



HIEX 1984 FLX 07 JUNE 19. 1534 EVENES LOCAL
7:50:10 TO 10:01:30 UT SCALE = 1:3.00E:06 TIME TICS EVERY 5.00 MINUTES

Figure 10. Mosaic pattern: 6/16

ORIGINAL PAGE IS
OF POOR QUALITY

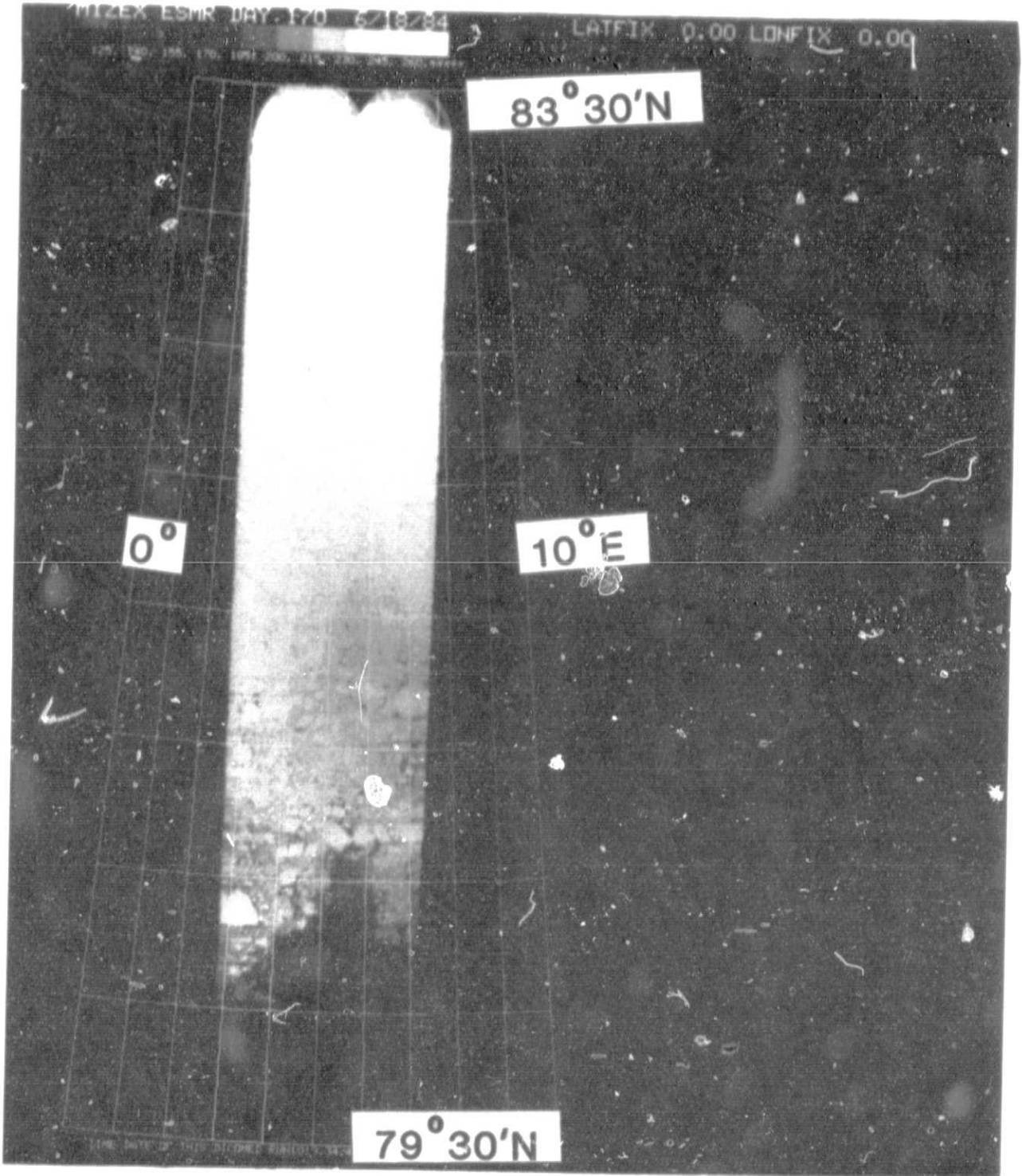


Figure 11. ESMR mosaic: 6/16

ADDAS PRINTCHECK BETWEEN ADDAS AND FCC ARE OKAY.
 POLAR QUEEN - 0500Z 170, LAT 80 50.2N LONG 4 00.0E.
 LEAVING 10/10 STRATOCUMULUS DECK AND IS CLEARING.
 CORRECTION: STRATOCUMULUS.
 ANI - WARE IS TAKING DATA 06 47 00.
 LIGHT SKELL AND NO WHITE CAPS.
 50 PERCENT STRATOCUMULUS.
 HEAVIER ON EITHER SIDE.
 HEAVIER CLOUD DECK ON EITHER SIDE.
 LOOKING FORWARD - JUST PATCHES OF LOW LEVEL CURVULUS BUT CLEARING.

AVERAGE MARE DATA FREQUENCY 1.3 POINTS PER SECOND.
 HILL TRY SOFTWARE ON NEXT RUN.
 OVER CLEAR PATCH AND LIGHT SKELL.
 NO WHITE CAPS.
 9/10 STRATOCUMULUS AND NO UPPER CLOUDS.
 ADDAS UP 07 05 40 NENT DUNKY 07 04 00.

TO THE WEST THERE ARE CIRRUS CLOUDS ASSOCIATED WITH LOW CENTER.
 TO THE WEST THERE ARE CIRRUS CLOUDS ASSOCIATED WITH LOW CENTER.

YEAR 1984 ADIDAS FLIGHT LOG --- FLIGHT NO. 7 --- HIZEX
 ---TIME--- --LAT-- --LONG-- ---GEO TRUE ---ROUND--- ALTITUDE---
 ---SPD DIR ---PRES RADAR--- IR AIR

170/07:56:01 79 30.9 086 15.7 0464 359.2 028 279 32950 31737 2.1 0.4 -5.9 -48.4
 170/07:59:01 79 38.4 086 17.6 0465 359.6 025 279 32957 31736 2.2 0.6 -5.8 -46.9
 170/08:00:01 79 46.2 086 19.2 0465 359.4 026 277 32966 31746 2.1 0.4 -5.7 -46.6
 170/08:01:01 79 54.0 086 20.3 0465 359.4 026 277 32969 31753 2.2 -0.1 -6.9 -47.6
 170/08:02:01 79 58.0 086 21.7 0465 359.6 024 271 32951 31713 2.2 0.4 -6.7 -47.1

170/08:02:19 80 01.6 085 23.7 0464 359.6 024 277 32959 31718 2.3 -0.2 -7.4 -45.6
 170/08:02:19 80 04.1 086 24.3 0464 359.7 025 278 32950 31720 2.4 0.2 -7.3 -46.9
 170/08:02:27 80 04.9 086 24.5 0464 359.7 025 278 32956 31727 2.3 0.1 -7.7 -44.8
 170/08:03:01 80 09.4 086 25.9 0464 359.9 023 278 32959 31719 2.2 -0.2 -7.9 -46.8
 170/08:03:03 80 09.6 086 25.8 0464 000.0 023 279 32963 31712 2.2 0.0 -7.9 -46.7
 170/08:03:51 80 15.8 086 27.7 0465 359.3 024 287 32959 31712 2.3 -0.5 -8.0 -45.6
 170/08:04:01 80 17.0 086 27.9 0465 359.1 025 284 32962 31714 2.3 -0.1 -7.9 -45.6
 170/08:05:01 80 24.9 086 29.3 0462 358.8 026 287 32955 31648 2.1 0.2 -8.4 -45.3
 170/08:06:01 80 28.3 086 30.6 0462 359.6 021 291 32958 31653 2.2 -0.1 -8.3 -46.9
 170/08:07:01 80 40.1 086 32.9 0462 359.5 023 294 32966 31649 2.2 -0.3 -8.0 -45.8

170/08:07:45 80 45.7 086 33.9 0461 359.7 020 286 32969 31657 2.3 0.4 -8.1 -45.1
 170/08:08:01 80 47.6 086 34.2 0462 359.7 020 290 32960 31654 2.3 0.0 -8.1 -47.3
 170/08:08:59 80 52.4 086 35.4 0461 359.7 020 293 32965 31648 2.2 0.4 -8.3 -44.5
 170/08:09:01 80 55.3 086 36.1 0461 000.2 018 291 32968 31648 2.2 0.3 -8.5 -44.2
 170/08:09:51 80 59.1 086 37.5 0460 000.3 018 291 32954 31626 2.3 -0.3 -8.5 -44.2
 170/08:09:47 81 01.4 086 37.6 0460 359.9 019 289 32953 31638 2.4 0.1 -9.9 -45.6
 170/08:10:01 81 03.2 086 38.4 0460 359.8 019 289 32951 31639 2.2 0.0 -11.0 -44.3
 170/08:11:01 81 10.7 086 39.8 0460 359.6 020 290 32952 31616 2.3 0.0 -11.9 -44.4
 170/08:12:01 81 18.4 086 41.7 0460 000.0 017 290 32964 31625 2.3 0.1 -13.8 -44.0
 170/08:13:01 81 22.0 086 43.9 0460 000.0 019 285 32947 31619 2.3 -0.2 -16.0 -44.3

170/08:14:01 81 23.5 086 45.8 0460 000.5 016 282 32961 31615 2.4 0.2 -12.4 -44.5
 170/08:15:01 81 41.1 086 47.9 0459 001.2 019 311 32968 31621 2.3 0.1 -13.7 -44.1
 170/08:16:59 81 48.9 086 50.3 0459 001.4 011 312 32965 31621 2.3 0.1 -13.7 -44.1
 170/08:17:01 81 56.4 086 52.5 0459 001.3 019 301 32955 31632 2.4 0.0 -10.1 -44.2
 170/08:18:01 82 04.0 086 54.8 0459 001.2 012 302 32955 31609 2.3 -0.3 -13.4 -42.3
 170/08:19:01 82 11.8 086 57.0 0460 001.1 012 297 32966 31616 2.2 -0.2 -11.3 -42.3
 170/08:19:07 82 12.4 086 57.1 0460 001.0 011 297 32958 31578 2.2 -0.2 -12.4 -43.5
 170/08:20:01 82 19.2 086 59.1 0461 000.8 013 294 32961 31605 2.2 0.0 -7.0 -44.5
 170/08:20:45 82 24.5 087 00.9 0461 001.1 011 292 32969 31610 2.3 -0.1 -6.8 -45.4
 170/08:21:01 82 27.0 087 01.5 0461 001.1 010 290 32961 31616 2.3 0.2 -6.6 -45.6
 170/08:21:23 82 28.0 087 02.8 0461 001.7 009 285 32964 31624 2.3 0.2 -6.8 -45.7
 170/08:21:29 82 30.7 087 02.8 0462 001.7 009 285 32964 31624 2.3 0.2 -6.8 -45.7
 170/08:22:01 82 30.7 087 04.5 0463 001.6 009 301 32965 31558 2.1 0.1 -8.7 -44.0
 170/08:23:01 82 42.3 087 07.6 0464 001.7 009 301 32956 31564 2.1 0.3 -8.6 -43.6

170/08:24:01 82 49.7 087 09.6 0465 001.7 009 307 32958 31575 2.2 0.0 -9.3 -42.9
 170/08:25:01 82 57.7 087 12.9 0465 002.0 007 307 32967 31594 2.3 -0.2 -9.3 -43.4
 170/08:25:45 83 03.4 087 15.1 0466 002.3 006 326 32965 31602 2.2 0.4 -9.5 -45.4
 170/08:26:01 83 05.5 087 15.9 0466 002.2 007 323 32965 31594 2.1 -0.2 -8.9 -43.9
 170/08:27:01 83 13.0 087 18.9 0467 002.4 004 319 32957 31602 2.1 0.0 -9.8 -43.9
 170/08:27:09 83 14.3 087 19.5 0467 002.3 005 319 32957 31578 2.3 -0.1 -10.7 -43.9
 170/08:28:01 83 17.0 087 21.5 0470 002.4 004 334 32967 31604 2.1 1.7 -12.6 -44.8
 170/08:28:01 83 17.0 087 21.5 0470 002.4 004 334 32967 31604 2.1 1.7 -12.6 -44.8
 170/08:29:01 83 17.7 086 22.1 0462 001.9 009 148 32958 31626 2.3 0.2 -13.0 -43.6
 170/08:30:01 83 17.7 086 22.1 0462 001.9 009 148 32958 31626 2.3 0.2 -13.0 -43.6
 170/08:30:01 83 17.7 086 22.1 0462 196.7 009 139 32904 31569 2.3 -12.3 -11.4 -43.7

170/08:30:49 83 11.0 085 53.9 0464 182.4 006 165 32944 31570 2.2 -2.3 -10.5 -44.7
 170/08:31:01 83 10.0 085 53.9 0464 181.2 006 144 32947 31560 2.1 -1.7 -10.4 -45.2
 170/08:31:31 83 06.1 085 52.9 0465 180.8 005 163 32956 31586 2.0 0.2 -11.3 -45.4
 170/08:32:01 83 05.1 085 52.6 0465 181.0 005 163 32967 31601 2.2 0.0 -11.4 -44.2
 170/08:33:01 82 54.6 085 51.1 0465 181.6 005 179 32966 31595 2.1 0.3 -10.3 -43.7
 170/08:34:01 82 46.6 085 49.0 0465 181.7 005 216 32963 31585 2.1 0.0 -10.4 -44.5
 170/08:35:01 82 47.9 085 48.1 0465 181.5 005 227 32962 31579 2.2 -0.1 -9.2 -44.7
 170/08:36:01 82 21.3 085 48.7 0466 181.2 006 216 32964 31509 2.1 -0.1 -8.0 -44.5
 170/08:37:01 82 15.9 085 43.9 0465 181.5 006 216 32965 31571 2.1 0.4 -9.0 -44.7
 170/08:38:01 82 15.9 085 43.9 0465 181.5 006 216 32965 31571 2.1 0.4 -9.0 -44.7

10/10 STRATOCUMULUS APPROACHING HIZEX AREA.

HALO EFFECTS FROM CLOUDS MADE UP OF ICE CRYSTALS.
 STRATOCUMULUS.

*** START OF RUN 2 TIME 08.03.02 LAT 6509.6 N LONG 06425.8 E FL 329

10/10 FRACTURED AND MEDIUM SIZE FLUES AT THE START OF THE RUN.

10/10 STRATOCUMULUS WITH ALTOCUMULUS.

LEAVING FRACTURED ICE ZONE, ENTERING POLAR PACK ICE CONCENTRATION 50 PERCENT.

MEDIUM SIZE MULTILAYER FLUES WITH FIRST YEAR FLUES, ROUGHLY 50 PERCENT MIXED.

SORT OF A THREE LEVEL CLOUD STRUCTURE.
 STRATUS, ALTOSTRATUS, ALTOCUMULUS.

STRATUS, ALTOSTRATUS, ALTOCUMULUS.

NORTH ALGNS LEG THICKNESS INCREASING WITH STRATUS AND ALTOSTRATUS.

ICE TEMP IS INCREASING AS WE GO NORTH ALGNS THE LEG.

INCREASING MIDDLE LEVEL CLOUDS - 7/10 ALTOSTRATUS.

STARTING TO ENTER CIRRUS CLOUD DECK.
 * LAYER CLOUD STRUCTURE.

FOUR LEVEL CLOUD STRUCTURE, TOTALLY OBLSCURED BELOW.

INS AND LORAN C ARE TRACKING AT THIS LATITUDE, READINGS VERY CLOSE.
 END OF RUN 2 TIME 08.27.52 LAT 6519.8 N LONG 03721.6 E FL 329

*** START OF RUN 3 TIME 08.30.48 LAT 6511.4 N LONG 03553.9 E FL 329

10/10 STRATOCUMULUS STRATUS, 4/10 ALTOSTRATUS AND PATCHES OF CIRRUS.

ORIGINAL PRINTING
OF POOR QUALITY

YEAR 1984	ADDS	FLIGHT LOG	GRD TRK	WIND	ALTIITUDE	HIZEK	SPD	DIR	PRE	RRADAR	PITCH	ROLL	IR	TEMP	AIR
TIME	LAT	LONG	HD	DIR	FT	HT	DR	GRD	PRES	RDR	PCH	RL	IR	TEMP	AIR
170/08:39:01	01 02	09.1	005 42.9	002	171	32959	31600	2.2	0.2	13.5	-43.7	0.2	0.1	13.5	-43.7
170/08:40:01	01 02	09.1	005 41.8	002	152	32971	31600	2.2	0.1	11.4	-43.0	0.1	0.1	11.4	-43.0
170/08:41:01	01 02	09.1	005 41.8	002	152	32971	31617	2.1	0.1	10.9	-43.0	0.1	0.1	10.9	-43.0
170/08:42:01	01 02	09.1	005 40.7	002	171	32959	31605	2.4	0.1	13.0	-43.0	0.1	0.1	13.0	-43.0
170/08:43:01	01 02	09.1	005 39.5	002	171	32959	31612	2.0	0.1	11.6	-44.3	0.1	0.1	11.6	-44.3
170/08:44:01	01 02	09.1	005 38.4	002	171	32959	31612	2.1	0.1	10.9	-44.4	0.1	0.1	10.9	-44.4
170/08:45:01	01 02	09.1	005 37.3	002	171	32959	31623	2.1	0.1	10.9	-43.8	0.1	0.1	10.9	-43.8
170/08:46:01	01 02	09.1	005 36.2	002	171	32959	31621	2.1	0.1	10.9	-43.8	0.1	0.1	10.9	-43.8
170/08:47:01	01 02	09.1	005 35.1	002	171	32959	31660	2.1	0.0	11.3	-43.9	0.0	0.0	11.3	-43.9
170/08:48:01	01 02	09.1	005 34.0	002	171	32959	31642	2.1	0.1	10.9	-44.1	0.1	0.1	10.9	-44.1
170/08:49:01	01 02	09.1	005 32.9	002	171	32959	31630	2.1	0.1	10.9	-44.1	0.1	0.1	10.9	-44.1
170/08:50:01	01 02	09.1	005 31.8	002	171	32959	31635	2.0	0.1	10.9	-44.1	0.1	0.1	10.9	-44.1
170/08:51:01	01 02	09.1	005 30.7	002	171	32959	31657	2.0	0.1	10.9	-44.1	0.1	0.1	10.9	-44.1
170/08:52:01	01 02	09.1	005 29.6	002	171	32959	31653	2.0	0.1	10.9	-44.9	0.1	0.1	10.9	-44.9
170/08:53:01	01 02	09.1	005 28.5	002	171	32959	31652	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/08:54:01	01 02	09.1	005 27.4	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/08:55:01	01 02	09.1	005 26.3	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/08:56:01	01 02	09.1	005 25.2	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/08:57:01	01 02	09.1	005 24.1	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/08:58:01	01 02	09.1	005 23.0	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/08:59:01	01 02	09.1	005 21.9	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/09:00:01	01 02	09.1	005 20.8	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/09:01:01	01 02	09.1	005 19.7	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/09:02:01	01 02	09.1	005 18.6	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/09:03:01	01 02	09.1	005 17.5	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/09:04:01	01 02	09.1	005 16.4	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/09:05:01	01 02	09.1	005 15.3	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/09:06:01	01 02	09.1	005 14.2	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/09:07:01	01 02	09.1	005 13.1	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/09:08:01	01 02	09.1	005 12.0	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/09:09:01	01 02	09.1	005 10.9	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/09:10:01	01 02	09.1	005 9.8	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/09:11:01	01 02	09.1	005 8.7	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/09:12:01	01 02	09.1	005 7.6	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/09:13:01	01 02	09.1	005 6.5	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/09:14:01	01 02	09.1	005 5.4	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/09:15:01	01 02	09.1	005 4.3	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/09:16:01	01 02	09.1	005 3.2	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/09:17:01	01 02	09.1	005 2.1	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/09:18:01	01 02	09.1	005 1.0	002	171	32959	31654	2.0	0.1	10.9	-44.0	0.1	0.1	10.9	-44.0
170/09:19:01	01 02	09.1	005 0.9	004	29.5	004	29.5	0.0	0.0	11.5	-45.2	0.0	0.0	11.5	-45.2

2 STAGE IN BALANCE MODE. 10/10 STRATUS, 10/10 STRATOCUMULUS, AND SOME ALTOCUMULUS, PATCHES OF CIRRUS. SOUTHWEST TO MIDDLE CLOUDS WHICH MUST BE ASSOCIATED. SOUTH ON THIS LEG WE ARE RUNNING INTO MIDDLE CLOUDS WHICH MUST BE ASSOCIATED.

THE LOW CENTER SOUTH OF US. THE LOW STRUCTURE BECOMING MORE PROMINENT. SOUTH ON THIS LEG WE ARE RUNNING INTO MIDDLE CLOUDS WHICH MUST BE ASSOCIATED.

SMALL FRAGMENTED ICE FLOES BELOW. END OF RUN 3 TIME 08.54.18 LAT 6009.1 N LONG 08020.6 E FL 329

SHALL FRAGMENTED ICE FLOES BELOW. START OF RUN 4 TIME 08.57.40 LAT 6020.6 N LONG 08029.6 E FL 329

IN POLAR PACK 60 PERCENT ICE CONCENTRATION SHALL TO MEDIUM ICE FLOES. OVER SOME LARGE MULTYEAR FLOES.

AS WE PROCEED ON THIS RUN THE THICKNESS OF THE LOW LEVEL CLOUDS INCREASE. AS WE PROCEED ON THIS RUN THE THICKNESS OF THE LOW LEVEL CLOUDS INCREASE.

GEORGIA TECH - ANMS CHANGED DATA TRACKS AT 09 08 00. THIS CAUSED A 10 MINUTE TRAIN TIME. NORTH - SOME MID ALTI STRATUS AND SOME CIRRUS PATCHES.

WESTWARD - THREE HIZEK EXH AMOUNT OF MID LEVEL AND HIGH CLOUDS IS INCREASING.

YEAR 1984 ADDAS FLIGHT LOG --- FLIGHT NO. 7 --- HIZEX												
TIME	LAT	LONG	GRD TRHD	SPD DIR	ALTITUDE	HRZ	PTCH	ROLL	IR	TEMP	AIR	
170/09:19:01	83 05.4	004 29.3	0470	358.7	010 299	32951	31570	1.8	0.6	-12.3	-44.5	
170/09:20:01	83 15.0	004 29.1	0470	358.8	011 299	32954	31581	1.7	0.2	-12.3	-44.8	
170/09:21:01	83 10.7	004 29.0	0470	359.0	009 305	32965	31585	1.8	-0.1	-13.9	-45.6	FL 329
170/09:22:01	83 20.2	003 45.0	0470	359.3	015 307	32965	31561	3.1	-0.2	-10.6	-44.7	
170/09:23:01	83 20.2	003 45.0	0465	356.3	010 317	32965	31649	2.2	-0.2	-10.6	-44.7	
170/09:24:01	83 24.5	003 32.0	0466	350.2	010 165	32956	31640	2.3	-0.6	-9.6	-44.9	MADE TURN COULD SEE PATCH AND IT WAS CLEAR WITH 95 PERCENT ICE CONCENTRATION.
170/09:25:01	83 13.8	003 04.6	0472	378.1	003 123	32918	31529	2.0	-0.9	-10.6	-44.7	MADE TURN COULD SEE PATCH AND IT WAS CLEAR WITH 95 PERCENT ICE CONCENTRATION.
170/09:26:01	83 11.6	003 04.9	0472	378.0	001 033	32931	31550	1.9	-0.3	-11.4	-44.9	*** START OF RUN 5
170/09:27:01	83 09.9	003 06.8	0471	378.3	002 168	32955	31572	1.0	0.3	-13.7	-43.9	10/10 STRATOSPHERIC, 5/10 ALTOSTRATUS AND CIRRUS PATCHES.
170/09:28:01	83 03.5	003 07.5	0470	378.6	001 211	32942	31559	2.0	0.4	-13.1	-43.6	
170/09:29:01	83 01.5	003 07.7	0470	378.6	001 213	32 58	31572	1.9	0.0	-12.4	-43.3	MADE ND
170/09:30:01	83 51.5	003 07.7	0470	378.5	000 168	32946	31587	1.9	0.0	-13.2	-45.1	MADE ND TAKING DATA AT 3 TIMES
170/09:31:01	83 59.3	003 08.3	0470	378.5	001 123	32954	31589	1.9	0.2	-13.4	-44.3	MADE ND TAKING DATA AT 3 TIMES PER SEC
170/09:32:01	83 59.3	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:33:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:34:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:35:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:36:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:37:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:38:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:39:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:40:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:41:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:42:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:43:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:44:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:45:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:46:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:47:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:48:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:49:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:50:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:51:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:52:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:53:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:54:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:55:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:56:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:57:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:58:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:59:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND
170/09:00:01	83 02.5	003 08.6	0470	378.6	000 168	32956	31578	1.9	0.4	-13.3	-44.3	ND

YEAR 1984 AIDAS FLIGHT LOG

Table with columns: TIME, LAT, LONG, ALT, SPD, DIR, PRES, RADAR, PITCH, ROLL, IR, TEMP, and various descriptive text notes such as 'SEVERE SMALL FRACTURED FLOES', 'ICE CONCENTRATION 25 PERCENT', 'LEFT OF A/C PLUME STRUCTURE AND SCATTERED FLOES', etc.

IN CLEAR PATCHES LEFT AND RIGHT OF A/C. NO ICE.
END OF RUN 6
TIME 09.59.32
LAT 7034.5 N
LONG C0340.4 E
FL 329

IN THE WATER THERE IS A LIGHT SHELL.
NO APPARENT MHI
NO APPARENT WHITE CAPS.

ACDAS TAPES SKIPPED. EDT
0 170 10.11.47

ORIGINAL PAGE IS
OF POOR QUALITY

YEAR 1984	ADIDAS	FLIGHT LOG	LOGS	LAT	LONG	FLIGHT NO.	7	MIXER	ALTITUDE	FRES	REAR	PITCH	ROLL	IR	TEMP	ATR
TIME						GRD	TRK	SPD	DIR	SPD	DIR					
170/11:33:00	68	24.3	015	49.1	0430	260.5	038	244	20197	20655	-4.3	51.2	0.8	-22.7		
170/11:34:00	68	28.2	015	33.8	0416	304.0	036	231	16811	16802	-2.3	10.9	4.3	-17.3		
170/11:35:00	68	32.1	015	19.7	0357	337.3	022	233	14115	14002	-5.4	28.6	-2.2	-13.2		
170/11:36:00	68	37.0	015	28.5	0357	072.4	016	236	10546	10501	-1.2	6.6	3.6	-5.6		
170/11:37:00	68	38.8	015	44.1	0359	074.0	011	236	9966	9663	1.0	-0.6	15.0	-5.7		
170/11:38:00	68	40.2	015	58.5	0307	074.9	017	246	9727	7891	-0.4	1.0	15.4	-3.9		
170/11:39:00	68	41.2	016	31.7	0277	073.6	012	249	7477	7454	-0.2	-0.3	4.8	-0.4		
170/11:40:00	68	42.9	016	24.7	0277	073.6	012	249	5874	5817	1.9	20.3	5.9	2.3		
170/11:41:00	68	43.1	016	34.0	0258	112.5	012	249	5874	5817	1.9	20.3	5.9	2.3		
170/11:42:00	68	39.6	016	41.0	0203	156.8	020	232	5800	5845	0.5	-4.4	0.1	1.2		
170/11:43:00	68	37.0	016	42.9	0153	185.7	031	196	4293	4147	-0.0	4.5	11.4	4.3		
170/11:44:00	68	34.6	016	43.0	0132	180.3	023	187	2609	2104	1.0	-2.1	11.7	5.0		
170/11:45:00	68	52.3	016	43.2	0132	176.3	014	157	1735	1578	2.1	-1.4	11.9	6.0		
170/11:46:00	68	50.0	016	43.5	0141	180.4	006	183	783	727	0.8	-1.3	12.3	10.7		

3.5 Fourth data flight—Day 174—Evenes RT

All instruments were operational.

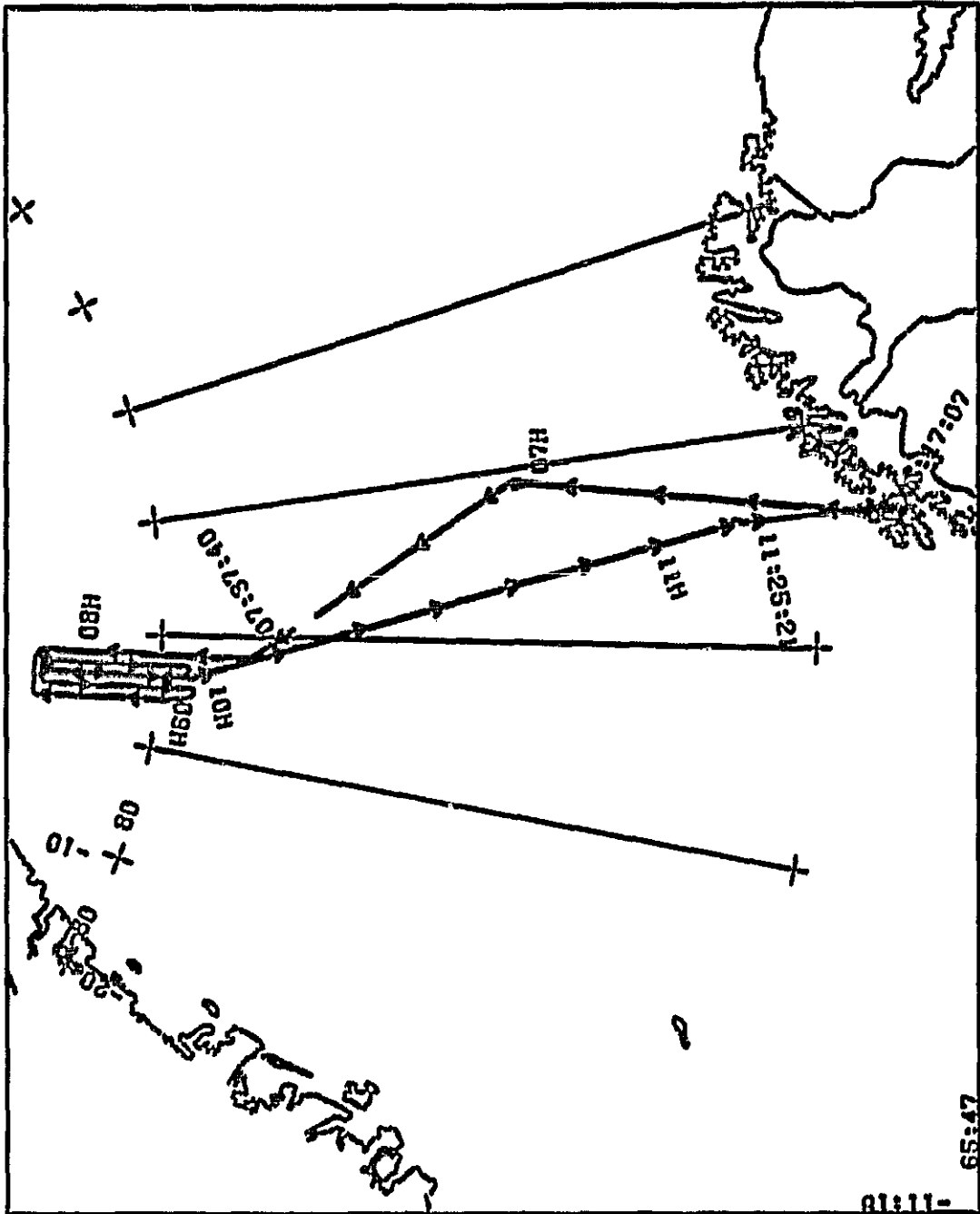
This flight originally scheduled for day 172 had to be postponed until 22 June because of difficulties with both Goddard and RAL gear.

Pattern 'B' was flown, with the low-level leg flown at 500' along the 6° 20' E meridian to coincide with intensive surface measurements and the NOAA P-3 transect along that line (the so-called Onstott line). The conditions were generally warm and cloudy over all of the MIZEX box, accompanied by the generally uninteresting radiometric signatures of sea ice near the melting point. As observed from the aircraft, the cloud deck seemed to hover over just the MIZEX box, being tantalizingly clear just to the north and west! Indeed, the SMMR image of multiyear fraction for this day indicates a strong MY signature also north and west of the MIZEX box, with the indication of no MY sea ice within it. It goes without saying that two days earlier, when we were unable to fly, the MY signature appeared very strongly within the MIZEX area in the SMMR image.

In addition to providing an excellent visual evaluation of ice conditions along the low-level transect, our choice of Option 'B' permitted obtaining albedo measurements of the solid pack, the ice margin, and the open sea with varying wave structure, albeit with a solid overcast. The low-level transect was extended to about 79° 30' N. The visual observations confirmed the presence of fresh snowfall over the entire area. Meltponds, although comprising less than 1% of the entire area, were observed to contain water.

PRECEDING PAGE BLANK NOT FILMED

ORIGINAL PART
OF POOR QUALITY.



RTZ 188 PZJ 08 JUNE 22. 1954 EYES LOCN.
6:15:56 TO 11:58:32 UT SCALE = 1:10-11E:68 TIME SIGS EVERY 10-50 MINUTES

Figure 12. Flight tracks: Evens RT 6/20

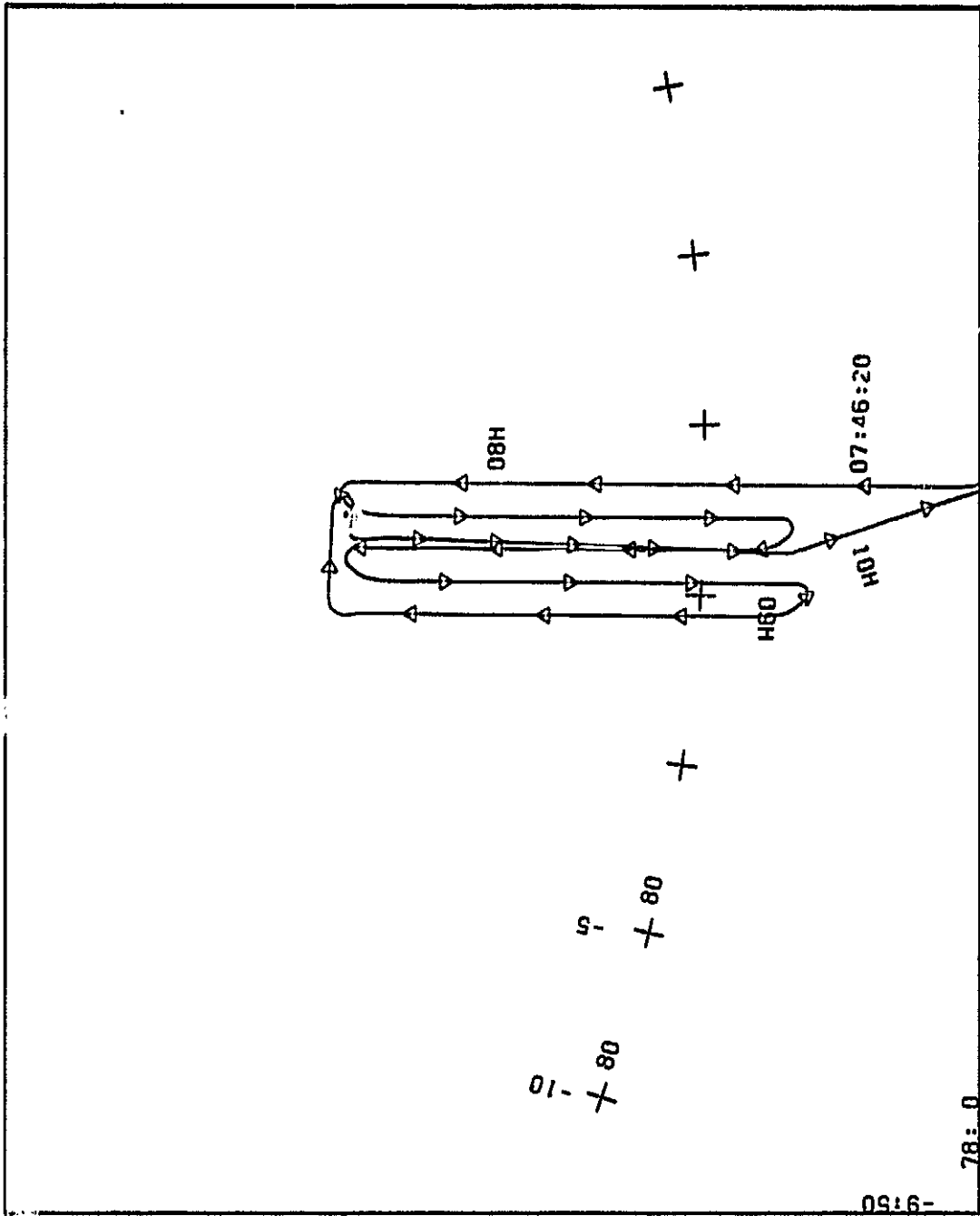


Figure 13. Mosaic pattern: 6/20

ORIGINAL IMAGE IS
OF POOR QUALITY

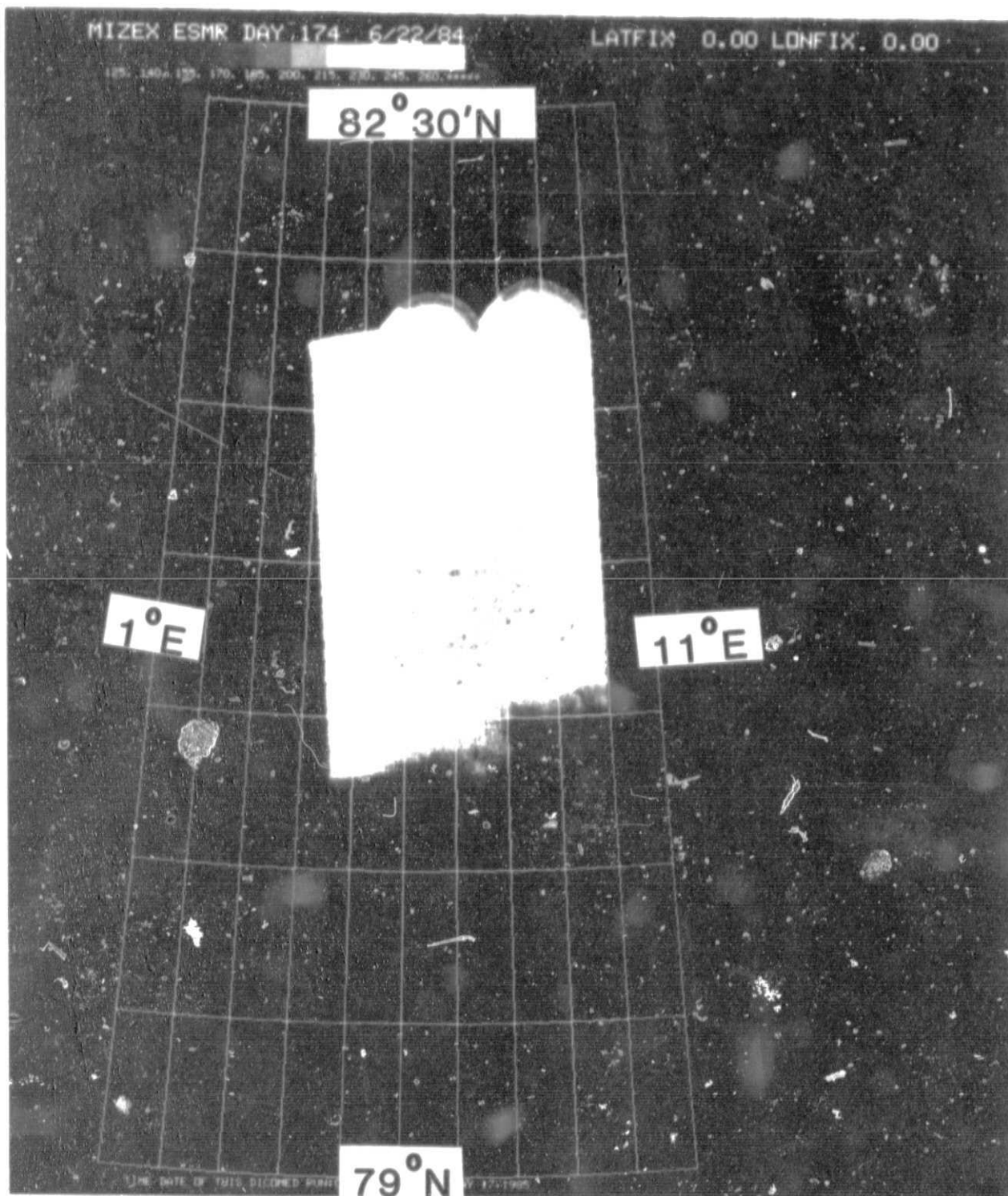


Figure 14. ESMR mosaic: 6/20

YEAR 1984 ADDAS FLIGHT LOG --- FLIGHT NO. --- ALTITUDE --- MIXER ---

---TIME--- ---LAT--- ---LONGS--- ---LOD--- SPD DIR SPD DIR ALTITUDE --- ROLL --- IR --- AIR --- TEMP---

B --- MIZEX ---

174/07/52:34 80 60 04.2 008 14.1 0482 358.3 019 231 32957 31640 2.1 -0.5 -11.7 -46.6 BREAK IN THE CLOUDS SEE SOME OF THE FRACTURED ICE.
174/07/52:53 80 04.2 008 14.4 0482 358.3 019 231 32957 31648 2.1 -0.7 -11.0 -46.5
174/07/53:04 80 04.3 008 14.6 0482 358.2 019 234 32957 31651 2.2 -1.1 -11.2 -46.2 ICE CONCENTRATION 90 PERCENT.
174/07/53:44 80 10.3 008 14.4 0482 358.4 017 235 32957 31623 2.1 -0.4 -9.4 -44.1 ICE CONCENTRATION 5 PERCENT.
174/07/54:00 80 12.3 008 14.3 0482 358.5 017 235 32955 31409 2.0 -0.7 -10.5 -45.4

174/07/54:28 80 15.8 008 14.3 0482 358.3 018 234 32962 31422 2.1 -0.7 -12.6 -45.1 FROM RADAR WE SHOULD BE AT THE EDGE OF ICE PACK.
174/07/54:48 80 16.4 008 14.3 0482 358.2 017 231 32960 31618 2.1 -0.6 -13.3 -44.4 10/10 STRATOCUMULUS.
174/07/55:00 80 16.6 008 14.2 0483 358.1 017 232 32957 31408 2.0 -0.6 -12.9 -44.9
174/07/55:10 80 16.8 008 14.4 0484 358.0 019 231 32958 31408 2.0 -0.6 -12.9 -44.4
174/07/55:19 80 16.9 008 14.4 0484 358.0 017 232 32954 31403 2.2 -0.5 -13.0 -42.8

174/07/57:44 80 39.4 008 14.3 0484 358.5 017 232 32983 31400 2.3 -0.9 -13.0 -43.9 10/10 STRATOCUMULUS .
174/07/57:54 80 43.7 008 14.4 0483 358.5 015 229 32954 31416 2.2 -0.2 -12.3 -45.0 STRATOCUMULUS.
174/07/58:00 80 44.2 008 14.4 0483 358.6 017 228 32954 31421 2.0 -0.4 -13.0 -43.0
174/07/59:00 80 52.3 008 14.3 0484 358.6 016 225 32952 31392 2.0 -0.7 -13.5 -45.6
174/08/00:00 80 01.0 00.5 008 14.2 0484 358.6 015 229 32947 31386 2.0 -1.1 -13.5 -46.0

174/08/01:00 80 08.4 008 14.4 0482 358.8 015 226 32952 31401 2.2 -0.4 -13.0 -44.9
174/08/02:00 80 16.4 008 14.6 0481 358.8 015 218 32954 31593 2.1 -0.7 -12.2 -44.3
174/08/03:00 80 24.4 008 14.4 0479 359.0 012 227 32964 31408 2.2 -0.3 -10.8 -45.0
174/08/04:00 80 31.9 008 14.6 0479 359.0 015 214 32956 31583 2.5 -0.6 -10.3 -44.7 END OF THIS RUN 10/10 STRATOCUMULUS.
174/08/05:00 80 39.4 008 14.6 0478 358.6 015 216 32959 31589 2.2 -0.2 -11.3 -44.9 NO PHOTO ON THIS RUN.

174/08/06:00 80 46.8 008 14.4 0478 358.7 014 222 32960 31389 2.5 0.0 -11.0 -43.8
174/08/07:00 80 54.3 008 14.5 0478 358.6 014 222 32956 31387 2.2 -0.2 -12.0 -43.4 ICE CONCENTRATION 90 PERCENT.
174/08/08:04:58 80 01.3 00.3 008 16.5 0478 359.0 014 222 32957 31610 2.2 -0.4 -10.1 -44.7 MEDIUM TO LARGE SIZE MULTI FLOES.
174/08/08:05:00 80 01.4 00.2 008 16.5 0478 359.0 016 215 32955 31387 2.1 -0.8 -9.0 -43.7 NORTH OF END OF RUN - NO CLOUDS ICE IS CLEAR.

174/08/08:05:34 80 01.4 00.2 008 16.4 0478 358.2 017 215 32948 31389 2.3 1.1 -1.2 -7.4 -44.5 III END OF RUN 2 TIME 08.05.35 LAT 8144.8 N LONG 08314.9 E FL 329
174/08/08:06:00 80 01.4 00.2 008 16.5 0478 358.9 015 222 32956 31399 2.2 -0.4 -10.1 -44.7 MEDIUM TO LARGE SIZE MULTI FLOES.
174/08/08:07:00 80 01.5 00.2 008 16.5 0478 359.0 014 222 32957 31610 2.2 -0.4 -10.1 -44.7 90 PERCENT ICE CONCENTRATION MEDIUM TO LARGE ICE FLOES ON TURN.
174/08/08:08:00 80 01.6 00.2 008 16.6 0478 358.9 016 215 32955 31387 2.1 -0.8 -9.0 -43.7
174/08/08:09:00 80 01.7 00.2 008 16.6 0478 358.9 016 215 32955 31387 2.1 -0.8 -9.0 -43.7
174/08/08:09:00 80 01.7 00.2 008 16.6 0478 358.9 016 215 32955 31387 2.1 -0.8 -9.0 -43.7
174/08/08:09:32 80 01.8 00.2 008 16.6 0448 181.9 020 200 32955 31381 1.9 -1.1 -10.9 -44.0 TIME 08.08.49 LAT 8134.9 N LONG 08705.0 E FL 329
174/08/08:10:00 80 01.9 00.2 008 16.6 0448 181.9 021 201 32956 31380 2.0 -0.5 -10.3 -45.3
174/08/10:50 80 22.4 007 06.8 0450 179.8 022 200 32969 31591 2.0 -0.5 -11.4 -44.0 10/10 STRATOCUMULUS.
174/08/11:00 80 31.6 007 07.1 0451 180.1 021 201 32962 31581 2.1 -0.5 -12.1 -43.8
174/08/12:00 80 40.6 007 07.8 0453 179.9 020 204 32955 31584 1.9 -0.4 -12.7 -45.1
174/08/13:00 80 50.2 007 08.2 0455 180.4 021 207 32956 31587 2.0 -0.5 -13.4 -46.2
174/08/14:00 80 59.1 007 08.7 0455 180.2 019 203 32970 31593 1.9 -0.4 -13.6 -44.5

174/08/15:00 80 48.4 007 10.3 0456 180.1 023 203 32961 31377 2.0 -0.6 -13.5 -46.0
174/08/16:00 80 40.9 007 11.5 0455 180.0 020 210 32955 31398 2.1 0.0 -11.7 -44.4
174/08/17:00 80 33.5 007 12.3 0453 180.4 021 213 32952 31398 2.0 -0.4 -13.7 -45.2
174/08/18:00 80 25.7 007 13.0 0451 180.4 021 213 32953 31398 2.0 -0.4 -13.6 -44.0
174/08/19:00 80 18.4 007 13.9 0450 180.6 021 213 32954 31610 2.2 -1.6 -13.3 -44.0

174/08/19:28 80 15.5 007 13.9 0450 179.9 019 206 32951 31611 2.2 -0.5 -12.9 -45.5 ALONG THIS LEG 10/10 STRATOCUMULUS.
174/08/19:30 80 15.5 007 13.9 0450 180.1 020 206 32955 31625 2.2 -0.3 -12.9 -45.5
174/08/19:32 80 15.5 007 13.9 0450 180.1 020 206 32955 31625 2.2 -0.3 -12.0 -46.1
174/08/19:40 80 15.4 007 14.2 0447 180.2 019 206 32954 31492 2.3 -0.7 -13.2 -44.6

174/08/23:44 79 43.2 007 17.6 0446 180.1 017 216 32957 31635 2.3 -0.5 -12.0 -42.9 END OF RUN 10/10 STRATOCUMULUS.
174/08/24:00 79 41.1 007 17.3 0446 180.5 020 215 32962 31699 2.3 0.6 -11.7 -44.8
174/08/24:32 79 37.1 007 17.8 0451 180.7 020 210 32974 31692 2.2 0.4 -11.0 -46.4 III END OF RUN 3 TIME 08.24.33 LAT 7936.8 N LONG 08717.6 E FL 329
174/08/25:00 79 34.0 007 18.2 0457 229.1 029 262 33171 31786 3.1 44.8 -12.9 -44.4
174/08/25:34 79 54.0 005 52.0 0450 309.1 006 294 33054 31603 0.5 35.6 -12.6 -49.1 BEFORE TURN COULD SEE THROUGH CLOUDS AND THERE WAS NO ICE.

174/08/26:00 79 36.2 006 40.0 0463 318.9 016 256 32996 31341 2.5 9.6 -12.1 -43.8
174/08/27:00 79 42.4 006 41.1 0471 359.7 016 228 32981 31341 2.5 0.0 -10.3 -42.1
174/08/28:38 79 48.3 006 41.1 0473 357.1 015 231 32983 31645 2.1 -0.4 -10.3 -42.8 *** START OF RUN 4 TIME 08.27.39 LAT 7948.6 N LONG 08621.6 E FL 329
174/08/28:50 79 51.2 006 41.1 0473 357.1 015 231 32983 31645 2.1 -0.4 -10.3 -42.8
174/08/28:52 79 53.9 006 40.6 0474 356.9 016 227 32952 31651 2.2 -0.5 -12.2 -44.0 NO PHOTO AT THE START OF THIS RUN.

YEAR 1984 AADAS FLIGHT LOG --- FLIGHT NO. 8 --- MIZEK

---TIME--- --LAT-- --LONG-- --HND-- --ALITUDE-- --TE/D--
 SPD DIR PRES RADAR PITCH ROLL IR AIR

174/09:06:00 79 54.5 004 25.3 0482 354.4 018 234 32959 31427 1.9 -1.2 -11.8 -44.4
 174/09:07:00 80 02.6 004 22.4 0485 354.6 018 228 32966 31400 1.7 -0.5 -13.0 -44.2
 174/09:08:00 80 04.7 004 21.4 0486 354.6 017 228 32958 31385 1.8 0.3 -12.8 -44.5
 174/09:09:00 80 08.0 004 20.2 0486 354.8 016 229 32961 31379 1.7 -0.9 -12.9 -43.6
 174/09:10:00 80 10.3 004 19.2 0486 354.8 018 231 32953 31374 1.7 -0.9 -13.3 -45.0

174/09:08:08 00 00.0 000 00.0 000 000 000 000 32850 31377 1.8 -0.6 -13.6 -45.8
 174/09:09:20 00 21.3 004 14.6 0483 354.4 016 224 32952 31378 1.8 -0.5 -13.5 -44.5
 174/09:10:00 80 26.5 004 12.4 0481 354.2 018 224 32955 31387 1.9 -0.2 -13.6 -44.6
 174/09:10:56 00 34.0 004 09.3 0478 354.4 016 228 32959 31383 1.9 -0.7 -13.6 -45.2
 174/09:11:00 00 34.5 004 09.6 0478 354.4 016 228 32956 31405 2.0 -0.5 -14.0 -47.0

174/09:12:00 80 42.0 004 05.5 0475 354.1 016 232 32952 31391 2.0 -0.1 -13.5 -45.4
 174/09:12:42 80 48.0 004 03.3 0474 354.1 016 232 32961 31389 2.1 -0.1 -13.2 -43.5
 174/09:13:00 80 50.3 004 02.3 0474 354.2 017 231 32954 31393 2.0 -0.3 -13.4 -43.8
 174/09:14:00 80 58.1 003 58.7 0472 354.1 016 228 32958 31388 2.1 -0.2 -13.4 -44.5
 174/09:14:02 80 58.2 003 58.8 0472 354.1 017 228 32954 31383 2.0 -0.4 -13.2 -43.4

174/09:15:00 81 06.0 003 54.7 0473 354.1 017 228 32959 31391 2.1 -0.4 -13.1 -44.5
 174/09:15:00 81 06.7 003 53.8 0474 354.0 017 228 32958 31389 2.0 -0.5 -13.2 -44.1
 174/09:16:00 81 12.7 003 51.2 0473 354.0 017 231 32955 31383 2.1 -0.2 -13.1 -43.5
 174/09:17:00 81 21.4 003 47.6 0475 354.5 016 232 32958 31390 1.9 -0.2 -10.1 -43.7

174/09:18:00 81 29.5 003 43.9 0476 354.4 015 229 32957 31359 1.9 -0.7 -11.1 -43.5
 174/09:18:58 81 37.0 003 40.4 0467 354.3 012 236 32937 31319 2.0 -0.8 -14.5 -45.4
 174/09:19:00 81 37.5 003 39.8 0466 354.2 014 229 32934 31291 1.8 -0.6 -14.3 -45.7
 174/09:20:00 81 44.6 003 33.0 0440 348.3 016 216 30787 29243 -0.9 -0.4 -12.2 -48.2
 174/09:21:00 81 51.1 003 31.9 0442 069.0 024 183 27784 26276 0.8 30.0 -15.0 -52.9

174/09:22:00 81 51.7 004 40.9 0435 090.9 016 201 25415 24114 -1.1 -0.7 -10.9 -46.6
 174/09:22:24 81 51.8 004 39.6 0431 091.0 016 205 32428 22980 -1.1 -1.0 -10.8 -43.8
 174/09:23:00 81 52.2 003 32.8 0409 091.0 017 206 32951 22515 -1.1 -0.5 -10.8 -42.7
 174/09:24:00 81 53.9 006 15.9 0401 092.0 011 205 18048 17824 -2.9 0.0 -10.5 -51.5

174/09:24:50 81 51.8 006 53.8 0395 093.2 006 194 15709 14743 -3.0 -0.5 -8.2 -25.2
 174/09:25:00 81 51.4 007 42.5 0394 093.3 006 194 15098 14231 -2.9 -0.6 -7.9 -24.6
 174/09:26:00 81 49.9 007 42.5 0368 159.2 016 207 11554 10821 -3.5 33.9 -6.0 -18.6
 174/09:27:00 81 45.6 007 23.0 0355 273.0 005 232 7757 7180 -5.2 7.1 -9.1 -10.7
 174/09:27:54 81 46.1 006 46.9 0337 275.3 006 320 4635 4228 -3.4 -0.9 -6.2 -9.9

174/09:28:00 81 46.1 006 43.2 0335 275.0 005 332 4286 3893 -3.2 -0.1 -5.8 -9.6
 174/09:28:26 81 46.4 006 26.6 0323 264.2 010 242 2942 2646 -1.5 -34.1 -0.3 -6.9
 174/09:29:00 81 44.4 006 18.1 0321 184.5 006 220 977 735 0.5 -2.0 0.4 -2.6
 174/09:29:28 81 42.0 006 12.3 0313 174.5 005 242 819 503 0.8 -11.9 0.0 -3.9
 174/09:29:40 81 40.9 006 14.3 0312 171.1 006 246 811 590 0.6 -3.2 0.5 -4.3

174/09:29:46 81 40.4 006 14.3 0311 170.4 005 238 792 575 1.5 -0.6 0.3 -2.1
 174/09:29:50 81 40.2 006 15.4 0310 170.9 005 242 788 574 1.3 0.2 0.3 -3.9
 174/09:30:00 81 39.8 006 15.6 0308 170.9 005 242 788 562 1.4 1.8 0.3 -4.9
 174/09:30:03 81 39.3 006 15.9 0306 171.8 005 257 778 574 1.5 1.8 0.3 -1.1
 174/09:30:26 81 37.1 006 18.0 0297 174.8 004 234 4635 4228 -3.4 -0.9 -6.2 -9.9

174/09:30:28:00 81 46.1 006 43.2 0335 275.0 005 332 4286 3893 -3.2 -0.1 -5.8 -9.6
 174/09:31:00 81 46.4 006 26.6 0323 264.2 010 242 2942 2646 -1.5 -34.1 -0.3 -6.9
 174/09:31:02 81 44.4 006 18.1 0321 184.5 006 220 977 735 0.5 -2.0 0.4 -2.6
 174/09:31:04 81 42.0 006 12.3 0313 174.5 005 242 819 503 0.8 -11.9 0.0 -3.9
 174/09:31:18 81 40.9 006 14.3 0312 171.1 006 246 811 590 0.6 -3.2 0.5 -4.3

174/09:31:22 81 32.6 006 19.0 0289 180.5 005 231 797 591 1.6 -0.4 0.0 -2.7
 174/09:31:34 81 31.6 006 19.0 0287 181.0 003 254 796 591 1.8 -0.9 0.0 -2.3
 174/09:31:54 81 30.0 006 19.0 0285 180.6 005 242 787 583 1.7 -0.2 0.1 -2.5
 174/09:32:00 81 29.5 006 19.5 0284 180.3 004 220 790 592 2.0 -1.0 0.2 -3.7

174/09:33:00 81 23.8 006 19.0 0284 180.3 005 220 789 586 2.0 -0.2 0.4 -2.6
 174/09:33:10 81 23.8 006 19.0 0284 180.3 005 220 793 597 2.0 -0.2 0.3 -2.3
 174/09:33:00 81 24.3 006 19.6 0282 180.5 002 247 785 587 2.0 -1.3 0.3 -2.2
 174/09:33:36 81 15.6 006 19.0 0281 180.8 008 219 778 581 2.0 -0.8 0.3 -2.7
 174/09:33:50 81 15.6 006 19.0 0281 180.8 008 213 778 581 2.0 -0.8 0.3 -2.7

35. CAMERA LOOKING STRAIGHT OUT THE LEFT SIDE IS ON.
 ICE ELSE IS CLEAR ON AIRCRAFT RADAR

MADE DATA POINT AT 3 POINTS PER SECOND.
 LOW LEVEL RUN IN THE M

10/10 CLOUD COVER ALONG THIS LEG - NO PHOTO.

ALTIMETERS PATCHES.
 LEFT SIDE CAMERA OFF.

END OF RUN 6 TIME 09.18.57 LAT 8137.0 N LONG 0340.6 E FL 328

CLEAR - CAN SEE THE ICE TO THE NORTH OF THE ROCK.
 ICE CONCENTRATION 98 PERCENT.

INS 81 51N 00 6 22.4E ULRAN C - 81 50.4N 00 6 18.9E.

TOP OF STRATOCUMULUS IS 5,000FT.

3200FT BOTTOM OF THE CLOUD.
 OPEN WATER BETWEEN FLOES AND SOME MELT PONDS.
 SOME SURFACE PATCHES.
 ALL 5 CAMERAS ON.

MADE DATA RUN STARTED.
 FAST AVERAGING.
 FAST AVERAGING.

*** START OF RUN 7 TIME 09.30.27 LAT 8136.9 N LONG 0348.0 E FL 07

FRESH SNOW ON SURFACE OF FLOES.
 .8 ABOVE ALVITO.
 IN FUR-BLANK.
 FOG PATCH.

ICE FREE POLYNYAS AND LEADS.
 SMALL AND HEADUPS MULTI AND FIRST YEAR FLOES.

ALL FLOES THERE IS SOME FRESH SNOW.
 FREE OF FOG PATCHES.

IN THE MAIN PACK NOM.

YEAR 1984 ADDAS FLIGHT LOS --- FLIGHT NO. 8 --- KIZEX
 ---TIME--- --LAT-- --LONG-- SFD HEAD ---ALTIMD---
 ---RUE SFD DIR PRES BADAR FITCH ROLL IR AIR

174/09/45:26 79 35.0 006 19.8 0297 180.7 002 035 2401 2124 10.1 -3.8 4.0 -5.3 CAMERAS OFF 09 58 CO.
 174/09/46:26 79 34.8 026 19.8 0296 178.0 002 130 2880 2570 10.4 -21.3 3.7 -5.8 CLOUD BASE 2,000FT.
 174/09/47:00 79 31.8 008 24.0 0307 160.0 000 000 5313 4689 4.9 -0.4 -10.8 -9.2 CLOUD TOP 4700FT.
 174/09/48:53 70 06.0 000 00.0 000 000 000 000 11993 11297 6.9 -0.3 -10.6 -17.5
 174/09/49:50 79 20.6 006 45.5 0339 161.1 013 206 12441 11726 6.8 -0.3 -10.0 -18.7

174/09/49:59:11 79 20.6 006 47.0 0360 161.1 013 212 12650 12278 6.9 -0.4 -9.6 -15.9 09 57 55 ADDAS DOWN BACK UP 09 58 59
 174/09/49:59:33 79 19.8 006 50.9 0345 161.1 015 206 12714 12278 6.9 -0.4 -9.7 -17.9
 174/09/49:59:53 79 18.9 006 55.9 0352 161.1 016 207 12848 12278 6.9 -0.4 -9.7 -17.9
 174/10/00:01 79 19.4 007 07.0 0368 162.2 016 214 13291 17397 5.9 -0.5 -8.7 -17.9
 174/10/00:01 79 04.6 007 18.6 0383 162.1 015 215 20662 19371 5.4 -0.2 0.5 -59.0
 174/10/00:01 79 59.5 007 29.8 0398 162.1 015 217 22226 22118 4.8 -0.2 -9.7 -39.0
 174/10/00:40:1 78 59.5 007 41.3 0413 163.2 018 257 25312 24146 4.6 -0.1 -6.1 -46.3
 174/10/00:40:1 78 58.7 007 53.7 0426 162.0 013 259 27349 26057 3.9 -0.4 0.8 -51.4
 174/10/00:40:1 78 58.7 008 05.3 0441 163.4 017 253 28962 27602 3.7 -0.7 1.6 -51.4
 174/10/00:40:1 78 51.9 008 17.0 0443 164.1 023 229 30748 29351 3.9 -0.5 -2.0 -49.7
 174/10/00:40:1 78 24.6 008 29.4 0456 164.1 024 217 32166 30744 2.7 -0.2 1.9 -47.9
 174/10/00:40:1 78 11.1 008 40.8 0469 164.4 027 215 33636 31524 1.5 -0.8 2.2 -45.9
 174/10/00:40:1 78 08.0 008 52.6 0480 164.5 028 218 35279 31848 1.6 -1.1 2.3 -43.1
 174/10/00:40:1 78 03.0 009 04.2 0486 164.6 027 223 37293 31855 1.7 -0.4 2.3 -44.4
 174/10/00:40:1 78 55.9 009 15.2 0482 164.9 025 223 39255 31600 1.6 -0.6 -1.7 -44.6
 174/10/01:13:01 77 48.9 009 25.9 0450 165.3 029 219 32947 31604 1.8 -0.5 0.9 -44.3
 174/10/01:13:01 77 41.6 009 36.7 0448 165.6 029 221 32953 31614 1.8 -0.2 -11.3 -45.1
 174/10/01:14:59 77 37.0 009 43.5 0447 165.8 031 220 34952 31606 1.7 -0.2 -11.8 46.5
 174/10/01:15:01 77 34.6 009 47.0 0447 166.0 032 222 34951 31596 1.7 -0.6 -12.0 -46.1

174/10/16:01 77 27.5 009 57.4 0445 166.2 031 222 32959 31634 1.9 0.2 -11.7 -45.6
 174/10/16:01 77 20.5 010 17.4 0445 166.0 032 218 32960 31668 1.7 -0.5 -10.7 -45.5
 174/10/16:01 77 02.1 010 27.4 0449 167.0 036 221 32961 31660 1.7 -0.3 10.7 -45.6
 174/10/19:01 77 25.3 011 25.9 0452 167.5 039 224 34946 31655 1.5 0.0 -11.1 -46.5
 174/10/20:01 76 59.1 010 36.3 0453 167.5 039 224 34945 31650 1.5 -0.2 -8.4 -46.7

174/10/21:01 76 51.6 010 45.7 0453 168.7 042 227 32940 31674 1.6 -0.5 -10.5 -47.9
 174/10/22:01 76 44.6 010 54.6 0450 168.3 041 230 32964 31697 1.7 0.0 -7.0 -48.0
 174/10/23:01 76 37.4 011 03.8 0447 168.4 040 225 32951 31708 1.5 0.0 -7.0 -48.0
 174/10/24:01 76 30.2 011 12.9 0444 169.1 044 223 32949 31746 1.5 -0.4 -11.6 -46.9
 174/10/25:01 76 23.2 011 21.1 0443 170.4 045 227 32945 31763 1.8 0.5 -11.6 -49.4

174/10/26:01 76 15.9 011 29.1 0442 170.2 048 227 32956 31775 1.8 -0.7 -11.2 -49.5
 174/10/27:01 76 08.9 011 37.1 0442 169.4 047 225 32956 31791 1.4 -0.4 -10.9 -46.7
 174/10/28:01 76 02.1 011 45.1 0441 169.9 051 222 32944 31911 1.7 -0.4 -10.6 -48.8
 174/10/29:01 75 25.3 011 53.9 0440 170.1 052 220 32940 31792 1.6 -0.9 -9.9 -48.5
 174/10/30:01 75 47.9 012 00.9 0439 170.3 054 221 32953 31819 1.6 -0.7 -9.4 -49.3

174/10/31:01 75 40.9 012 08.7 0436 170.9 055 225 32959 31853 1.5 -0.7 8.0 -49.8
 174/10/32:01 75 33.6 012 16.5 0436 170.5 060 219 32955 31840 1.5 -0.7 1.4 -50.8
 174/10/33:01 75 26.8 012 23.7 0429 171.8 065 218 32939 31857 1.5 -1.0 7.4 -52.8
 174/10/34:01 75 19.9 012 31.1 0425 172.1 064 218 32936 31919 1.8 -0.2 -8.4 -52.1
 174/10/35:01 75 13.1 012 38.0 0423 172.2 065 222 32950 31918 1.3 -1.0 -8.4 -52.1

174/10/36:01 75 06.4 012 45.0 0422 173.0 072 221 32938 31919 1.6 -0.2 -7.9 -56.0
 174/10/37:01 74 59.6 012 51.7 0422 173.6 072 226 32936 31928 1.6 -0.8 -6.5 -56.9
 174/10/38:01 74 52.6 012 58.2 0423 173.4 071 226 32949 31963 1.5 -0.4 -7.1 -55.1
 174/10/39:01 74 46.1 013 04.9 0424 173.5 069 227 32945 31994 1.6 -0.6 -1.2 -55.5
 174/10/40:01 74 39.5 013 11.3 0426 173.5 067 226 32936 31999 1.6 -0.4 -1.5 -56.3

174/10/41:01 74 32.3 013 17.9 0426 172.8 068 226 32959 32021 1.6 -0.5 0.6 -55.0
 174/10/42:01 74 25.1 013 24.0 0427 172.8 062 225 32953 32072 1.5 -0.4 -0.9 -55.6
 174/10/43:01 74 18.6 013 30.4 0427 172.6 065 220 32974 32056 1.5 -0.4 -0.9 -55.6
 174/10/44:01 74 11.7 013 36.6 0426 172.6 064 218 32947 32054 1.6 -0.4 0.1 -55.3
 174/10/45:01 74 04.7 013 42.5 0425 172.8 068 217 32951 32094 1.4 -0.2 0.1 -55.3

174/10/46:01 75 57.9 013 48.5 0420 172.8 072 210 32951 32069 1.4 -1.3 2.6 -56.5
 174/10/47:01 75 51.1 012 54.1 0412 172.7 073 210 32940 32083 1.6 -0.1 0.4 -55.5
 174/10/48:01 75 44.5 014 00.0 0406 172.8 074 209 32954 32126 1.6 -0.3 -1.9 -53.7
 174/10/49:01 75 38.1 014 05.0 0402 172.7 072 207 32962 32131 1.6 -0.1 3.9 -55.0
 174/10/50:01 75 31.5 014 10.8 0398 172.7 071 207 32944 32162 1.6 -0.5 -3.2 -55.5

10/10 10.09.52 ADDAS TAPES SKIPPED. EOT

10/10 STRATOCUMULUS.

YEAR 1994 ADDAS FLIGHT LOG --- FLIGHT NO. 8 --- MIZEX
 ---TIME--- --LAT-- --LONG-- GND TRKE --HDC-- --ALTITUDE--
 SPD HEAD SPD DIR PRES RADAR PITCH ROLL IR AIR

174/11:24:13	68 00.9	016 07.3	0263	160.9	054	166	19255	18723	-0.7	-0.2	-0.9	-21.3
174/11:25:01	68 01.2	016 12.1	0263	160.9	054	166	19255	18723	-0.7	-0.2	-0.9	-21.3
174/11:26:01	68 01.3	016 20.1	0270	161.2	045	169	17405	18279	-1.0	-0.0	-1.1	-19.4
174/11:27:01	68 01.4	016 28.1	0261	159.6	041	161	16038	18279	-1.0	-0.0	-1.1	-19.4
174/11:28:01	68 01.6	016 36.1	0261	159.6	041	161	16038	18279	-1.0	-0.0	-1.1	-19.4
174/11:29:01	68 01.8	016 44.1	0253	159.4	034	159	11169	10540	-1.2	-1.0	-0.3	-17.9
174/11:30:01	68 01.9	016 52.1	0253	159.4	034	159	8270	6789	-2.3	-1.0	0.0	-3.1
174/11:31:01	68 01.9	016 01.1	0214	159.9	032	156	6630	6041	3.9	-1.5	9.6	3.1
174/11:32:01	68 01.9	016 09.1	0201	174.2	029	160	5739	5100	-0.2	-1.5	10.5	2.9
174/11:33:01	68 01.9	016 17.1	0168	176.9	017	160	5633	2571	3.4	-0.1	11.6	5.1
174/11:34:01	68 01.9	016 25.1	0162	182.5	012	230	2572	1673	1.6	-2.7	12.0	7.6
174/11:35:01	68 01.9	016 33.1	0143	182.8	019	233	1620	821	-2.4	2.5	12.5	9.1

11 35 SDCAMERA OFF.

3.6 Fifth data flight—Day 176—Evenes RT

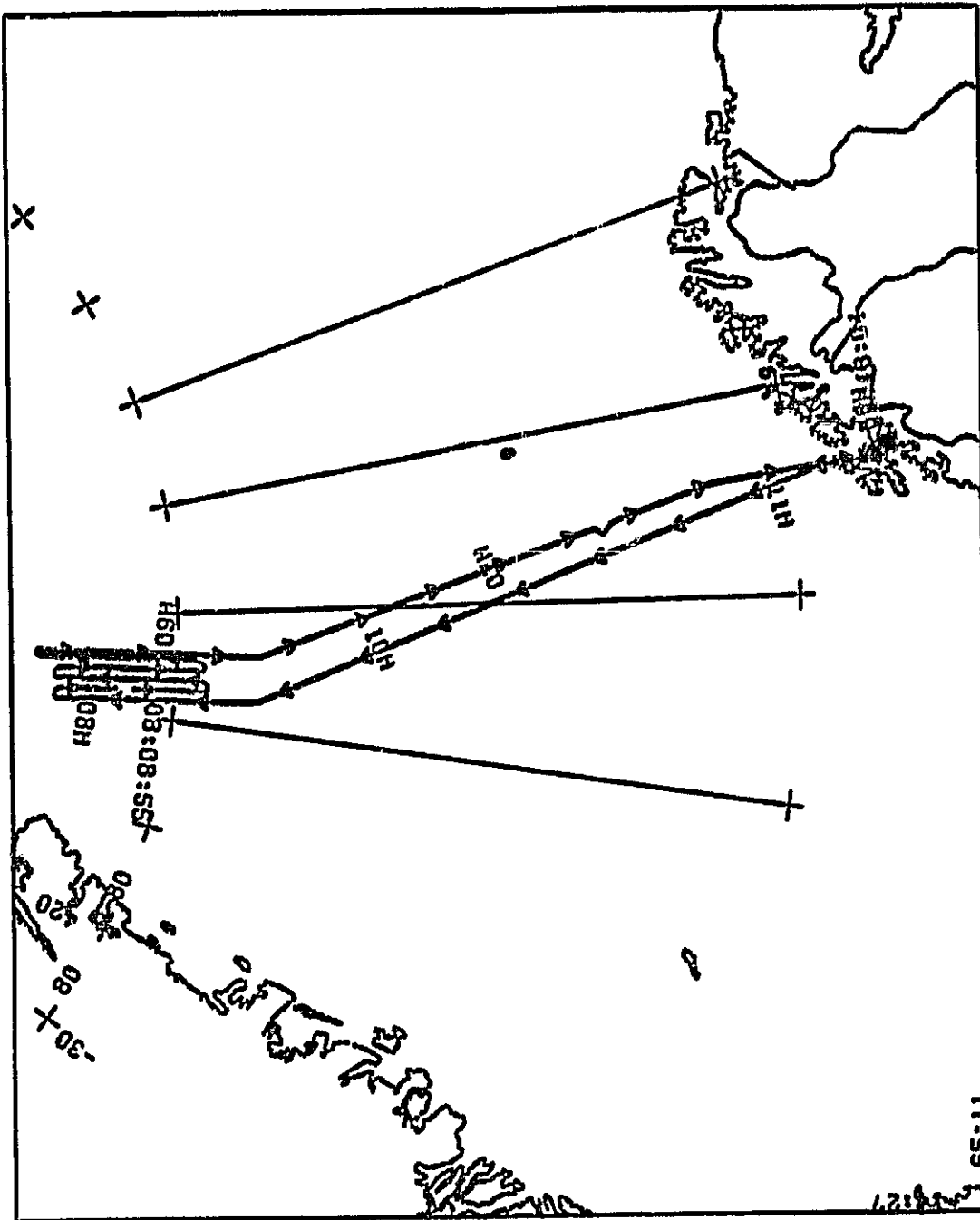
All instruments were operational; the main data recording system (ADDAS) had some momentary malfunctions.

A slightly modified pattern 'A' was flown from west to east with the first five legs spaced the usual 10 nm apart but the fifth and sixth spaced only 5 nm apart. The sixth leg was also along the 6° 10' E meridian to coincide with the estimated position of the now-famous Onstott Line overflowed on day 174. This was designed to permit the passive microwave side-lookers to acquire data along that line on leg 5, and the altimeter on leg 6. Upon our approach, we were informed by the Polarstern that the drift had been 10' further west than the prediction upon which we had based our pattern. Fortunately, that simply meant that the altimeter & side-looking radiometers had exchanged favorable legs. For that flight, our two inertial navigation systems and the Loran-C were all in agreement to within 0.2 nm; none of them had been updated since departure from Evenes!

Our approach to Leg 1 was actually straight-line from 78° 38.2' N, 2° 26.8' E. This permitted us a spectacular passive microwave image of the eastern edge of the Greenland MIZ. Unfortunately, the entire area was solidly cloud-covered, so photography was precluded. About 100 Km south of the east/west ice edge, an ice streamer, about 25 Km in extent, was observed to meander mostly due east and then south. This streamer was observed on both legs 1 and 2. The MIZEX area itself appeared rather compact, with relatively few open leads of less than 1 Km in width in evidence. The pack signature was monotonously that of moist sea ice, and so the floe structure was indistinguishable. The ice edge in the MIZEX area was quite compact, but with an astonishingly regular sine-wave pattern with a wavelength of about 28 Km. About 2-½ oscillations were observed. A solitary thin ice band, ca. 1 Km wide, was observed running east/west about 30 Km south of the edge across legs 5 & 6.

Leg 6 was extended to 78° 40' N in order to get some good wind/wave data. The visual estimation of wind further south was about 20 m/s, judging from the whitecaps. Unfortunately, we had eliminated both passes over Bjornoye to maximize time over MIZEX, so we shall have to rely on WX charts for our wind comparisons.

ORIGINAL PARTIAL
OF POOR QUALITY



INDEX 1984 FLY 03 JUNE 24, 1984 F/CHES LOCAL
S:67154 TO 11250150 DT SCALE = 118.512656 TIME TICS EVERY 10.00 MINUTES

Figure 15. Flight tracks: Evanes RT 6/22

ORIGINAL PATTERN
OF POOR QUALITY

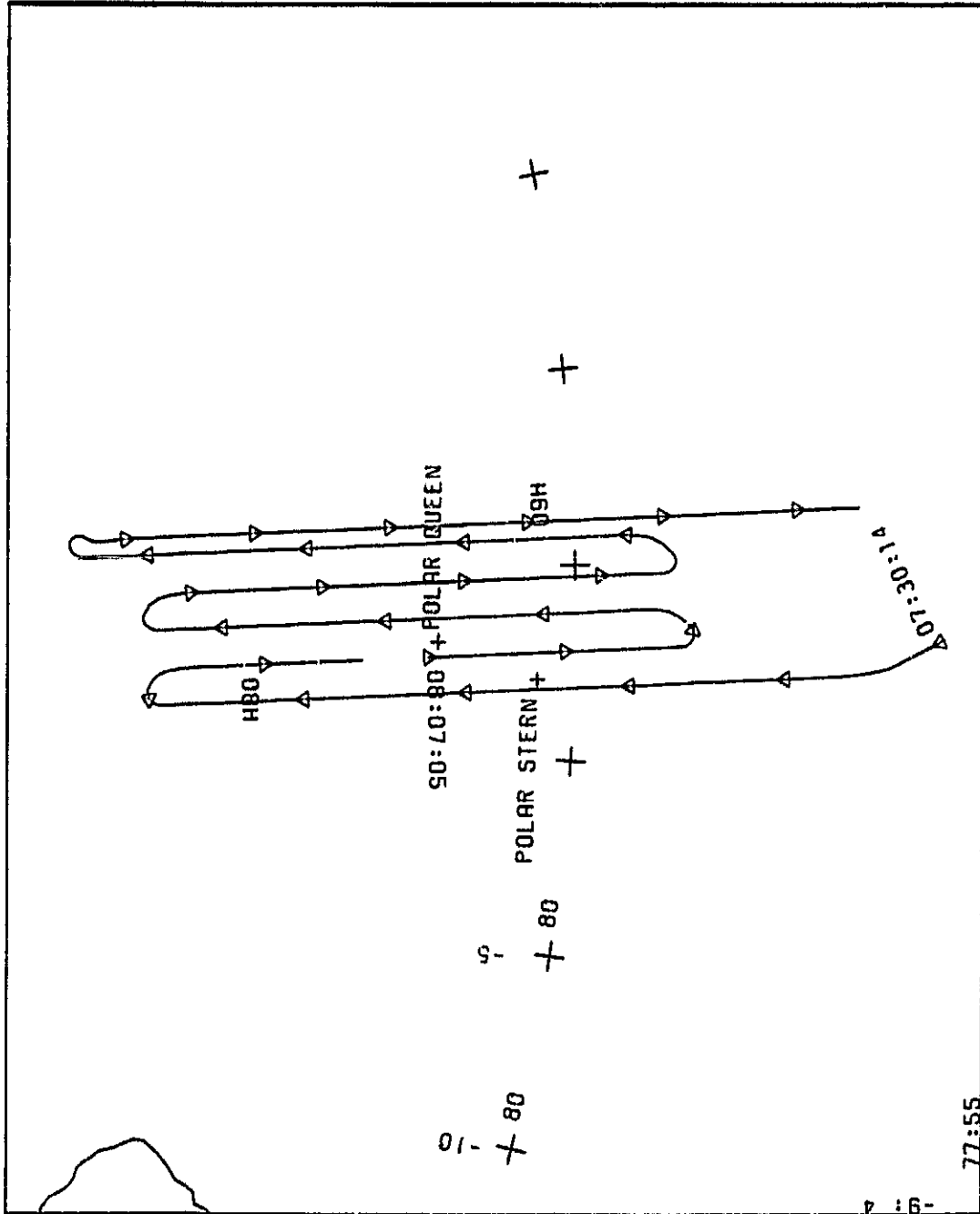


Figure 16. Mosaic pattern: 6/22

ORIGINAL PAGE IS
OF POOR QUALITY

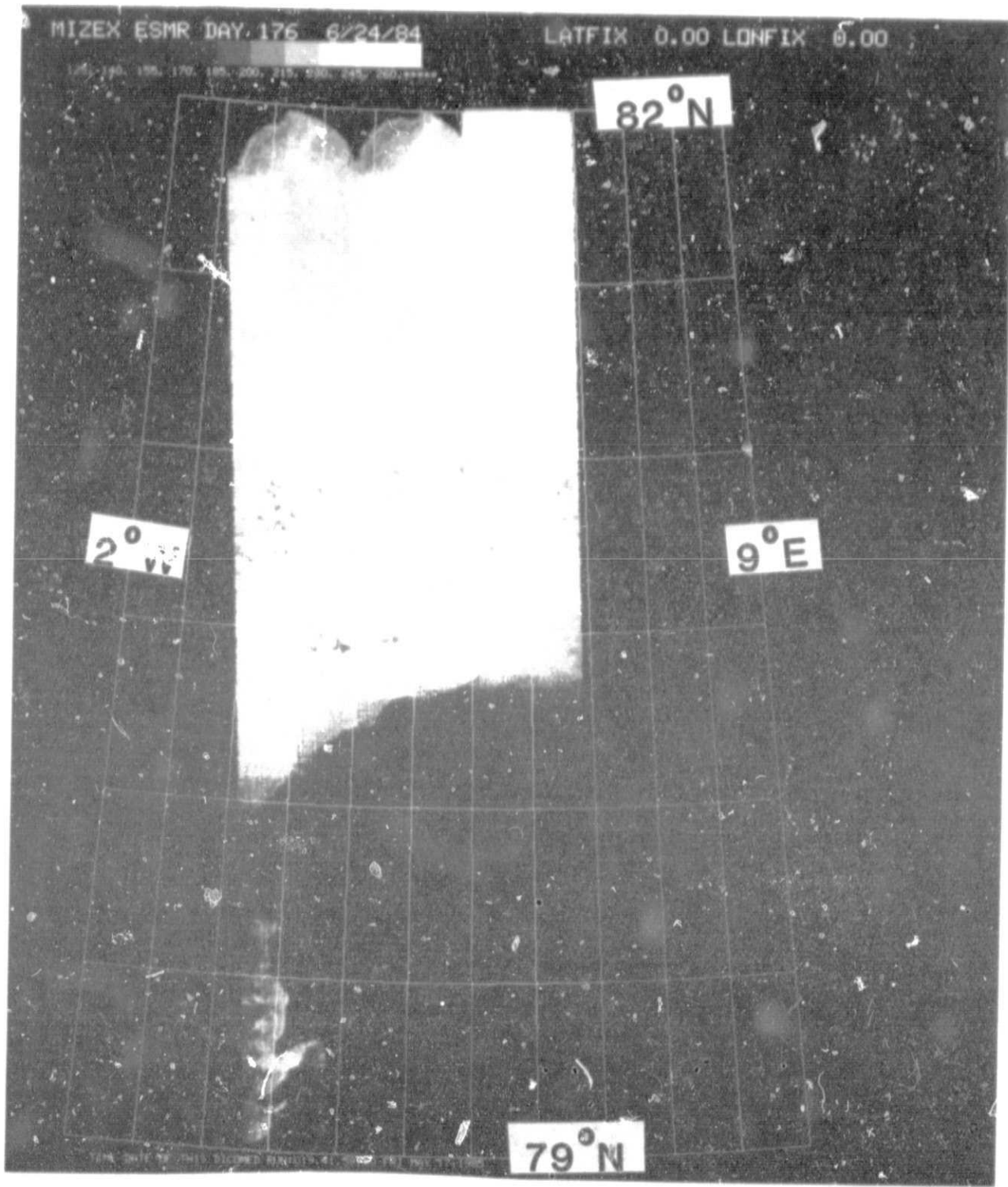


Figure 17. ESMR mosaic: 6/22

YEAR 1984 A304S FLIGHT LOG --- FLIGHT NO. --- 9 --- MZEX

Table with columns: TIME, LAT, LONG, SPD, DIR, PITCH, ROLL, IR, AIR, TEMP, IR, AIR, TEMP. Includes flight data from 176/06:09:36 to 176/06:54:06. Includes notes like 'HOUSEKEEPING CHECK WITH MCC - OKAY.' and 'ESTIMATED WIND SPEED 40 KNOTS, HEAVY SMOKE AND WHITE CAPS.'

ORIGINAL PAGE
OF POOR QUALITY

YEAR 1984 AIRCRAFT FLIGHT LOGS --- FLIGHT NO. --- MIZEK --- ALTITUDE --- TEMP ---
 ---TIME--- ---LAT--- ---LONG--- ---KIND--- ---SPD OVR--- ---DIR--- ---PRES--- ---RADAR--- ---PITCH--- ---ROLL--- ---IR--- ---AIR---

176/06:54:16 73 55.4 011 29.5 0489 338.7 029 166 32977 31839 2.4 -0.2 -5.9 -42.4
 176/06:55:00 74 00.9 011 22.5 0489 338.1 029 160 32977 31861 2.5 -0.2 -10.5 -43.5
 176/06:55:00 74 09.4 011 07.0 0489 336.2 029 182 32972 31839 2.4 -1.9 -9.7 -42.3
 176/06:55:00 74 23.7 010 49.8 0491 337.9 027 179 32951 31916 2.5 -0.3 -11.9 -42.6

176/06:55:00 74 31.3 010 38.8 0491 337.6 029 182 32956 31933 2.5 -0.2 -12.1 -42.2
 176/06:55:00 74 36.5 010 38.0 0490 337.3 029 183 32949 31930 2.6 -0.4 -12.1 -44.0
 176/07:01:00 74 38.9 010 27.5 0491 337.3 029 164 32961 31907 2.5 -0.3 -12.2 -44.2
 176/07:01:00 74 46.4 010 16.4 0492 337.3 029 184 32979 31923 2.6 -0.7 -11.7 -42.8
 176/07:01:18 74 49.0 010 13.0 0492 337.1 028 186 32955 31951 2.5 -0.5 -11.7 -41.5

176/07:02:00 74 54.0 010 05.5 0492 336.7 030 186 32967 31905 2.7 0.1 -9.6 -40.8
 176/07:03:00 75 01.9 009 53.7 0491 336.7 029 186 32957 31904 2.5 -0.2 -9.7 -41.6
 176/07:04:00 75 07.4 009 42.1 0490 336.9 029 186 32947 31906 2.5 -0.2 -10.3 -41.5
 176/07:05:00 75 16.2 009 28.6 0489 336.3 028 183 32969 31862 2.5 -0.4 -9.8 -40.2

176/07:07:00 75 32.0 005 05.7 0488 335.7 029 184 32954 31879 2.6 -0.2 -9.4 -41.0
 176/07:08:00 75 39.3 008 51.3 0487 336.0 028 183 32964 31850 2.6 -0.6 -9.0 -42.2
 176/07:09:00 75 47.0 008 40.5 0486 335.5 028 184 32971 31871 2.5 -0.7 -8.6 -40.7
 176/07:10:00 75 54.4 007 27.8 0486 335.5 028 181 32977 31877 2.6 -0.5 -7.4 -40.7
 176/07:10:03 75 55.2 008 26.0 0486 335.5 029 181 32975 31870 2.7 -0.4 -6.5 -40.2

176/07:10:24 75 57.2 008 22.9 0487 335.5 029 183 32966 31895 2.7 -0.2 -6.6 -39.7
 176/07:11:00 76 01.6 008 14.9 0487 335.2 029 183 32975 31867 2.8 -0.6 -6.6 -41.4
 176/07:12:00 76 09.3 009 01.4 0488 334.8 028 182 32969 31862 2.5 -0.2 -12.2 -39.0
 176/07:13:00 76 16.6 007 47.9 0488 334.8 026 183 32967 31859 2.6 -0.5 -13.7 -40.2
 176/07:14:00 76 24.0 007 54.5 0488 335.0 026 183 32962 31846 2.5 -0.7 -13.7 -40.2

176/07:15:00 76 28.7 007 25.1 0488 334.4 026 188 32962 31832 2.5 -0.2 -15.0 -40.4
 176/07:15:00 76 32.5 007 20.0 0488 334.4 027 187 32965 31840 2.4 -0.4 -15.0 -40.4
 176/07:16:00 76 38.9 007 19.0 0488 334.4 026 188 32959 31845 2.5 -0.7 -8.6 -39.7
 176/07:16:00 76 38.9 007 05.6 0489 333.9 026 183 32962 31853 2.6 -0.5 -14.9 -39.5
 176/07:17:00 76 46.2 006 51.1 0490 334.4 027 177 32957 31832 2.5 -0.7 -20.2 -40.1

176/07:18:00 76 53.8 006 36.0 0490 334.0 025 175 32972 31830 2.4 -0.2 -10.4 -40.5
 176/07:18:54 77 01.4 006 22.3 0490 333.2 025 183 32960 31806 2.5 -0.9 -14.4 -38.4
 176/07:19:00 77 01.1 006 21.0 0490 333.2 023 179 32965 31843 2.4 0.2 -16.0 -38.3
 176/07:19:52 77 04.9 006 12.9 0490 333.7 025 180 32963 31850 2.4 -0.4 -26.7 -38.2
 176/07:20:00 77 08.3 006 05.6 0490 333.4 024 179 32963 31815 2.5 -0.8 -17.6 -39.4

176/07:21:00 77 15.8 005 49.4 0490 332.1 023 175 32976 31819 5.3 -0.2 -25.7 -41.1
 176/07:22:00 77 23.0 005 33.2 0490 332.1 024 179 32971 31816 2.3 -0.7 -29.6 -41.8
 176/07:23:00 77 30.4 005 17.5 0493 333.1 024 175 32972 31791 2.4 -0.3 -29.5 -40.7
 176/07:24:00 77 37.9 005 00.4 0495 332.3 026 175 32963 31789 2.3 -0.2 -17.5 -40.3

176/07:25:00 77 45.2 004 42.8 0497 332.2 028 173 32973 31786 2.3 -0.6 -14.9 -41.1
 176/07:26:00 77 52.4 004 25.3 0495 331.9 028 175 32972 31774 2.1 -1.5 -14.9 -38.9
 176/07:27:00 78 00.0 004 07.1 0499 331.8 028 172 32972 31785 2.2 -0.3 -14.9 -40.7
 176/07:28:00 78 07.4 003 49.1 0500 331.2 027 172 32965 31772 2.3 -0.6 -15.6 -39.6
 176/07:29:00 78 16.5 003 30.6 0500 330.8 028 173 32977 31784 2.2 -0.7 -15.5 -40.2

176/07:29:30 78 18.3 003 21.1 0500 330.5 028 174 32965 31766 2.2 -0.6 -15.9 -39.8
 176/07:30:00 78 22.1 003 10.6 0500 330.2 026 178 32969 31773 2.2 -0.4 -14.8 -39.2
 176/07:30:00 78 26.1 002 54.5 0500 330.6 025 175 32971 31751 2.2 -0.5 -13.1 -38.7
 176/07:31:00 78 29.3 002 51.3 0500 330.3 025 175 32964 31761 2.2 -0.5 -13.0 -40.0

176/07:32:00 78 36.6 002 31.6 0500 334.1 024 165 32995 31776 2.3 20.6 -15.5 -41.5
 176/07:33:00 78 44.1 002 30.2 0500 337.5 021 163 32990 31785 2.0 20.1 -16.6 -40.8
 176/07:33:00 78 54.9 002 00.0 0500 349.8 022 170 32957 31769 2.0 3.7 -18.6 -38.8
 176/07:34:00 79 03.0 002 17.0 0498 356.2 022 170 32964 31787 2.1 0.4 -17.9 -39.7
 176/07:35:00 79 01.2 002 14.5 0497 356.8 020 167 32960 31778 2.3 -0.7 -16.1 -39.4

176/07:36:00 79 09.5 002 11.1 0496 355.9 020 171 32971 31716 2.1 -0.4 -18.4 -40.9
 176/07:37:00 79 27.9 002 08.2 0494 356.5 023 164 32961 31711 2.4 -0.6 -17.1 -41.1
 176/07:38:00 79 27.1 002 04.6 0494 356.3 024 165 33036 31803 2.2 -0.7 -16.0 -40.2
 176/07:38:32 79 30.1 002 03.8 0494 356.4 024 163 33067 31830 2.2 -0.2 -12.8 -40.2

ALONG TRACK SURFACE WIND INCREASING AND SIZE OF SWELLS INCREASING.
 10/10 STRATOCUMULUS.
 NORTH - ENTERING STRATOCUMULUS AND ALTOSTRATUS ASSOCIATED WITH LOW PRESSURE.

NON ENTERRING 10/10 STRATOCUMULUS, 5/10 ALTOSTRATUS.
 07 09 00 REBALANCE HYGROMETERS.
 CORRECTION: HYGROMETERS.

FRONT CHECK ON AIDAS WITH MDC - WKAY.
 CLOUD STRUCTURE CENTER OF LOW PRESSURE IS NORTH AND EAST OF US.

10/10 ALTOSTRATUS, CLOUD HIGH 30,000FT.
 POLAR QUEEN - 80 36N 3 27E ESTIMATED POSITION.

POLAR QUEEN 80 09N 02 07E.
 POLAR QUEEN 80 36N 02 55E.
 ICE ON THE RADAR - JOHN KELLER.

M/P 4 07 31 57.
 POLAR STEER - 07 36 09 - 80 09 02 03 3E.
 INCREASED 100 FT FOR JOHN FORELL.

ORIGINAL TABLE
OF POOR QUALITY

YEAR 1984 AODAS FLIGHT LOG --- FLIGHT NO. 9 --- HIZEK
 ---TIME--- --LAT-- --LONG-- --ALTITUDE--
 ---THRU--- --LAT-- --LONG-- --SPD DIR PRES RADAR PITCH ROLL IR AIR

176/10:01:25 76 55.9 089 25.2 0427 161.2 043 174 35031 31978 1.8 -0.6 -5.4 -42.0
 176/10:02:01 76 51.9 089 31.9 0425 161.1 043 174 35038 31953 1.8 -0.7 -3.4 -41.7
 176/10:03:01 76 45.4 089 42.3 0425 161.2 042 172 35035 31977 1.8 -0.6 -4.9 -41.7
 176/10:04:01 76 38.2 089 52.1 0427 161.9 043 172 35041 31975 1.9 0.5 -9.1 -42.5
 176/10:04:51 76 31.9 010 03.2 0427 161.9 045 173 35040 32020 1.7 -0.5 -9.0 -40.9
 176/10:05:03 76 31.9 010 03.3 0427 162.0 045 173 35056 31997 1.7 -0.4 -8.9 -42.7
 176/10:06:01 76 25.3 010 13.1 0428 162.1 045 174 35057 32013 1.7 0.0 -9.3 -43.0
 176/10:07:01 76 18.6 010 22.7 0430 162.5 046 175 35054 32030 1.6 -0.7 -9.8 -41.8
 176/10:08:01 76 11.6 010 32.7 0428 162.4 048 175 35045 32028 1.8 -0.7 -10.0 -43.1
 176/10:09:01 76 05.2 010 42.2 0426 162.6 047 174 35043 32017 1.8 -0.7 -9.8 -44.3
 176/10:10:01 75 58.6 010 51.7 0424 162.5 048 173 35041 31999 1.7 -0.6 -10.0 -42.5
 176/10:11:01 75 51.8 010 61.2 0422 162.6 047 174 35051 32034 1.7 -0.7 -9.4 -42.5
 176/10:12:01 75 45.1 011 10.0 0421 162.7 048 172 35049 32040 2.0 -0.9 -11.7 -49.4
 176/10:13:01 75 38.7 011 18.9 0420 162.0 045 173 35058 32030 2.0 -0.6 -11.7 -49.4
 176/10:14:01 75 31.9 011 27.9 0421 162.9 046 170 35060 32073 1.7 -0.9 -12.3 -49.6
 176/10:15:01 75 25.3 011 37.2 0422 163.1 047 171 35054 32043 1.8 -0.9 -12.2 -49.0
 176/10:16:01 75 18.6 011 44.6 0422 163.2 050 170 35043 32056 1.8 -0.8 -9.4 -43.0
 176/10:17:01 75 11.8 011 53.1 0422 163.3 047 170 35035 32032 1.8 -0.7 -8.7 -44.6
 176/10:18:01 75 05.3 012 01.5 0422 163.4 043 172 35049 32056 1.8 -0.8 -9.9 -43.0
 176/10:19:01 74 58.6 012 09.5 0422 163.4 045 173 35041 32061 1.8 -0.7 -9.5 -44.4
 176/10:20:01 74 51.7 012 17.6 0423 163.5 042 171 35042 32041 1.6 -0.6 -5.2 -45.4
 176/10:21:01 74 45.1 012 25.4 0423 164.0 044 168 35055 32033 1.6 0.8 -6.6 -42.4
 176/10:22:01 74 38.4 012 33.2 0424 163.9 044 169 35054 32100 1.7 -1.3 -7.4 -43.1
 176/10:23:01 74 31.5 012 40.7 0425 163.7 044 170 35052 32111 1.7 -0.6 -7.9 -44.0
 176/10:24:01 74 25.0 012 48.6 0426 163.6 046 169 35053 32084 1.7 -0.9 -7.2 -45.0
 176/10:25:01 74 18.3 013 56.1 0427 162.4 045 167 35052 32090 1.6 -0.6 -2.7 -45.9
 176/10:26:01 74 11.3 013 04.0 0427 162.9 046 169 35059 32107 1.5 -0.5 -2.7 -45.9
 176/10:27:01 74 04.6 013 11.5 0427 164.0 050 170 35045 32070 1.6 -0.8 -0.6 -46.3
 176/10:28:01 73 57.8 013 18.5 0427 164.2 046 170 35042 32103 1.4 -0.8 -3.1 -45.3
 176/10:29:01 73 51.0 013 25.7 0421 164.5 046 172 35048 32113 1.6 -0.9 -8.0 -44.0
 176/10:30:01 73 44.3 013 32.8 0421 164.8 047 175 35051 32114 1.6 -0.9 -1.7 -45.3
 176/10:31:01 73 37.6 013 39.5 0421 164.8 046 175 35056 32142 1.6 0.0 -2.5 -45.0
 176/10:32:01 73 30.8 013 46.8 0420 165.2 046 174 35051 32135 1.4 -1.0 3.8 -45.2
 176/10:33:01 73 24.1 013 53.1 0419 165.0 046 174 35038 32149 1.6 -0.7 3.5 -45.4
 176/10:34:01 73 17.6 013 59.8 0418 165.3 048 175 35049 32150 1.3 -0.7 1.6 -44.0
 176/10:35:01 73 10.9 013 05.7 0418 165.7 046 168 35072 32013 1.5 -0.8 -2.0 -45.2
 176/10:36:01 73 04.2 014 13.0 0418 166.0 048 170 35070 32003 1.8 -0.8 -2.4 -47.7
 176/10:38:01 72 58.3 014 17.5 0406 158.6 053 168 30376 29470 2.4 9.1 2.6 -49.1
 176/10:39:01 72 50.2 014 26.0 0406 164.6 048 174 31879 30950 2.8 0.1 -6.7 -48.5
 176/10:40:01 72 43.5 014 32.5 0418 164.3 043 164 32825 31912 2.9 -0.4 9.3 -46.0
 176/10:41:01 72 36.7 014 38.7 0422 164.8 048 166 32932 32048 1.5 -0.7 -0.6 -46.5
 176/10:42:01 72 30.1 014 44.9 0423 164.9 046 166 32919 32020 1.6 -0.7 4.7 -45.1
 176/10:43:01 72 23.2 014 51.0 0423 165.1 045 167 32929 32021 1.5 -0.7 3.4 -46.3
 176/10:44:01 72 16.3 014 57.2 0424 165.2 045 166 32930 32033 1.5 -0.7 6.9 -45.8
 176/10:45:01 72 09.6 014 03.2 0425 162.4 044 165 32942 32043 1.5 -1.0 2.0 -47.7
 176/10:46:01 71 52.0 015 10.5 0420 162.0 046 162 32918 32057 1.7 -0.7 3.9 -46.3
 176/10:48:01 71 45.3 015 18.5 0419 165.2 045 164 32929 32062 1.7 -0.5 4.8 -46.9
 176/10:49:01 71 38.7 015 25.7 0419 165.3 042 164 32924 32041 1.7 -0.8 5.1 -45.7
 176/10:50:01 71 32.1 015 31.3 0420 165.3 040 164 32930 32059 1.7 -0.6 4.7 -46.8
 176/10:51:01 71 25.4 015 36.9 0419 165.8 042 167 32927 32075 1.7 -0.6 4.5 -46.7
 176/10:52:01 71 18.4 015 41.8 0420 170.3 042 170 32921 32070 1.8 -0.2 -0.1 -45.0
 176/10:53:01 71 11.4 015 45.7 0420 171.6 041 170 32913 32062 1.8 -0.3 4.9 -44.1
 176/10:54:01 71 04.6 015 48.2 0419 175.7 043 171 32914 32062 1.7 0.0 6.5 -46.5
 176/10:55:01 71 01.8 015 50.2 0419 177.9 041 173 32914 32061 1.5 -1.2 1.8 -47.8
 176/10:56:01 70 54.7 015 50.5 0424 170.4 045 165 32926 32078 1.2 -1.0 4.9 -45.4
 176/10:58:01 70 48.5 015 51.3 0425 170.8 043 181 32919 32074 1.6 -1.4 9.7 -45.2

INS READINGS AS OF 09 57 50 - 77 20N 03 44.EE.
 CAN SEE SEA SURFACE THRU A BREAK IN THE CLOUDS.
 MEDIUM SHELL, WHITE CAPS, MDC SPEED 15 KNOTS.

YEAR 1984 ADDAS FLIGHT LOG --- FLIGHT NO. 9 --- MIZEK													
TIME	LAT	LONG	SPO	DIR	DIR	PRES	RADAR	PITCH	ROLL	TEMP			
			TRUE			ALTITUDE				IR			
			HEAD							AJR			
176/11:05:01	70 33.4	015 51.9	0426	178.2	081	184	32921	32078	1.5	-2.4	-9.7	-45.6	
176/11:06:01	70 32.4	015 52.3	0427	178.1	082	187	32924	32079	1.6	-0.9	-4.8	-44.9	
176/11:07:01	70 31.4	015 52.7	0428	178.4	083	191	32927	32079	1.6	-1.0	-0.5	-43.8	
176/11:08:01	70 30.4	015 53.1	0429	178.7	084	197	32931	32079	1.5	-0.9	2.9	-45.7	
176/11:09:01	70 29.4	015 53.8	0428	178.3	083	189	32922	32084	1.6	-0.8	0.0	-44.1	
176/11:10:01	70 28.4	015 54.5	0429	178.2	082	188	32925	32101	1.4	-1.0	0.0	-45.1	
176/11:11:01	70 27.4	015 55.0	0431	178.2	082	192	32926	32093	1.5	-0.8	0.0	-45.4	
176/11:12:01	70 26.4	015 55.9	0432	178.3	082	196	32929	32113	1.7	-0.9	0.0	-44.7	
176/11:13:01	70 25.4	015 57.2	0434	177.8	081	199	32920	32092	1.6	-0.6	0.0	-44.5	
176/11:14:01	70 24.4	015 58.4	0438	178.7	083	202	32921	32085	1.5	0.5	-5.2	-45.5	
176/11:15:01	69 43.5	015 59.3	0439	178.8	081	203	32922	32117	1.5	-0.7	-4.1	-45.8	
176/11:16:01	69 42.5	015 59.5	0440	180.5	083	207	32923	32080	1.3	-1.0	-4.3	-45.9	
176/11:17:01	69 41.5	015 59.7	0440	180.6	083	208	32924	32116	1.4	-1.0	-5.4	-45.8	
176/11:18:01	69 40.5	015 59.9	0440	180.6	083	209	32925	32116	1.5	-0.5	-2.9	-44.9	
176/11:19:01	69 39.5	015 60.1	0440	180.6	083	211	32930	32103	1.4	-0.5	-2.9	-44.9	
176/11:20:01	69 38.5	015 60.3	0440	180.6	083	215	32931	32109	1.5	-0.7	-5.9	-45.4	
176/11:21:01	69 37.5	015 60.5	0440	180.6	083	217	32929	32109	1.4	-0.7	-4.1	-47.1	
176/11:22:01	69 36.5	015 60.7	0438	180.6	083	216	32928	32084	1.4	-0.7	-5.0	-44.2	
176/11:23:01	69 35.5	015 60.9	0437	179.9	082	213	32925	31949	1.5	-0.4	-6.0	-44.2	
176/11:24:01	69 34.5	015 61.1	0437	179.9	082	217	32925	31949	1.4	-1.0	-6.0	-46.5	
176/11:25:01	69 33.5	015 61.3	0436	180.0	083	217	32925	31949	1.4	-1.0	-5.7	-46.1	
176/11:26:01	69 32.5	015 61.5	0436	179.9	082	218	32929	32012	1.5	-0.8	-5.7	-46.1	
176/11:27:01	69 31.5	015 61.7	0436	180.0	083	218	32925	32082	1.6	-0.7	-5.4	-47.2	
176/11:28:01	69 30.5	015 61.9	0435	180.0	083	213	32940	32099	1.3	-0.7	-5.3	-46.6	
176/11:29:01	69 29.5	015 62.1	0435	179.8	082	211	32925	32098	1.7	-0.4	-5.3	-47.6	
176/11:30:01	69 28.5	015 62.3	0434	179.9	085	212	32909	32116	1.5	-1.0	-5.2	-48.4	
176/11:31:01	69 27.5	015 62.5	0434	179.6	085	210	32911	32106	1.4	-1.7	-5.2	-47.9	
176/11:32:01	69 26.5	015 62.7	0434	179.6	085	210	32911	32106	1.4	-1.7	-5.2	-47.9	
176/11:33:01	69 25.5	015 62.9	0434	175.7	089	210	30868	30150	-3.1	-20.0	-4.6	-50.7	
176/11:34:01	69 24.5	015 63.1	0430	171.7	084	220	20568	20609	-2.5	-21.4	-4.7	-51.8	
176/11:35:01	69 23.5	015 63.3	0431	158.7	088	223	26611	25246	-3.1	-20.1	-2.4	-47.7	
176/11:36:01	69 22.5	015 63.5	0409	156.6	044	217	28276	21030	-3.2	-1.1	-0.3	-33.0	
176/11:37:01	68 34.6	016 33.5	0386	155.5	027	215	18189	17778	-3.3	0.0	3.2	-25.0	
176/11:38:01	68 33.6	016 33.5	0371	147.0	021	216	16270	13699	-3.5	0.2	5.2	-17.7	
176/11:39:01	68 32.6	016 33.5	0354	211.0	025	226	10552	10281	0.6	17.6	1.3	-8.6	
176/11:40:01	68 31.6	016 33.5	0287	216.9	039	212	9270	8977	-0.4	-2.5	-0.5	-7.2	
176/11:41:01	68 30.6	016 33.5	0276	101.5	002	359	6701	5265	0.7	-35.6	-1.3	-2.2	
176/11:42:01	68 29.6	016 33.5	0267	001.3	002	350	4833	4833	1.8	-3.8	7.4	-0.2	
176/11:43:01	68 28.6	016 33.5	0258	351.5	002	349	4390	4390	1.9	-0.2	8.2	-3.3	
176/11:44:01	68 27.6	016 33.5	0249	268.5	002	348	4002	4002	1.5	-0.5	8.3	-1.9	
176/11:45:01	68 26.6	016 33.5	0240	221.2	002	347	3687	3687	5.1	-0.5	8.4	-0.7	
176/11:46:01	68 25.6	016 33.5	0231	239.2	002	359	4126	3999	4.1	-0.7	9.1	-0.1	
176/11:47:01	68 24.6	016 33.5	0222	239.2	002	359	4126	3999	4.1	-0.7	9.1	-0.1	
176/11:48:01	68 23.6	016 33.5	0213	0184	254.2	005	350	4119	3875	6.1	28.9	9.1	1.6
176/11:49:01	68 22.6	016 33.5	0204	074.4	003	316	5186	5044	2.0	-8.1	9.5	1.3	
176/11:50:01	68 21.6	016 33.5	0195	061.4	002	044	2534	2437	0.3	5.1	9.7	5.4	
176/11:51:01	68 20.6	016 33.5	0186	076.3	002	359	1533	1447	0.2	1.5	10.1	6.4	
176/11:52:01	68 19.6	016 33.5	0177	049.7	014	359	742	677	1.4	-11.8	10.7	8.1	

DISTANCE BETWEEN BOTH - 1.5 NAUTICAL MILES.

NADIR CAMERA ON.

TIME 11.08.34 LAT 6928.5 N LONG 01601.2 E FL 329

TIME 11.11.50 LAT 6901.1 N LONG 01604.6 E FL 329

VOID ABOVE END OF RUN - FORWARD MESSAGE CAME UP.

TIME 11.12.03 LAT 6859.1 N LONG 01604.8 E FL 329

11 09 48 ACCORDING TO RADAR 3 THE TIME FOR REFLECTOR ONE.

CORRECTION THAT TIME SHOULD READ 11 09 44.

3.7 Sixth Data Flight—Day 178—Evenes RT

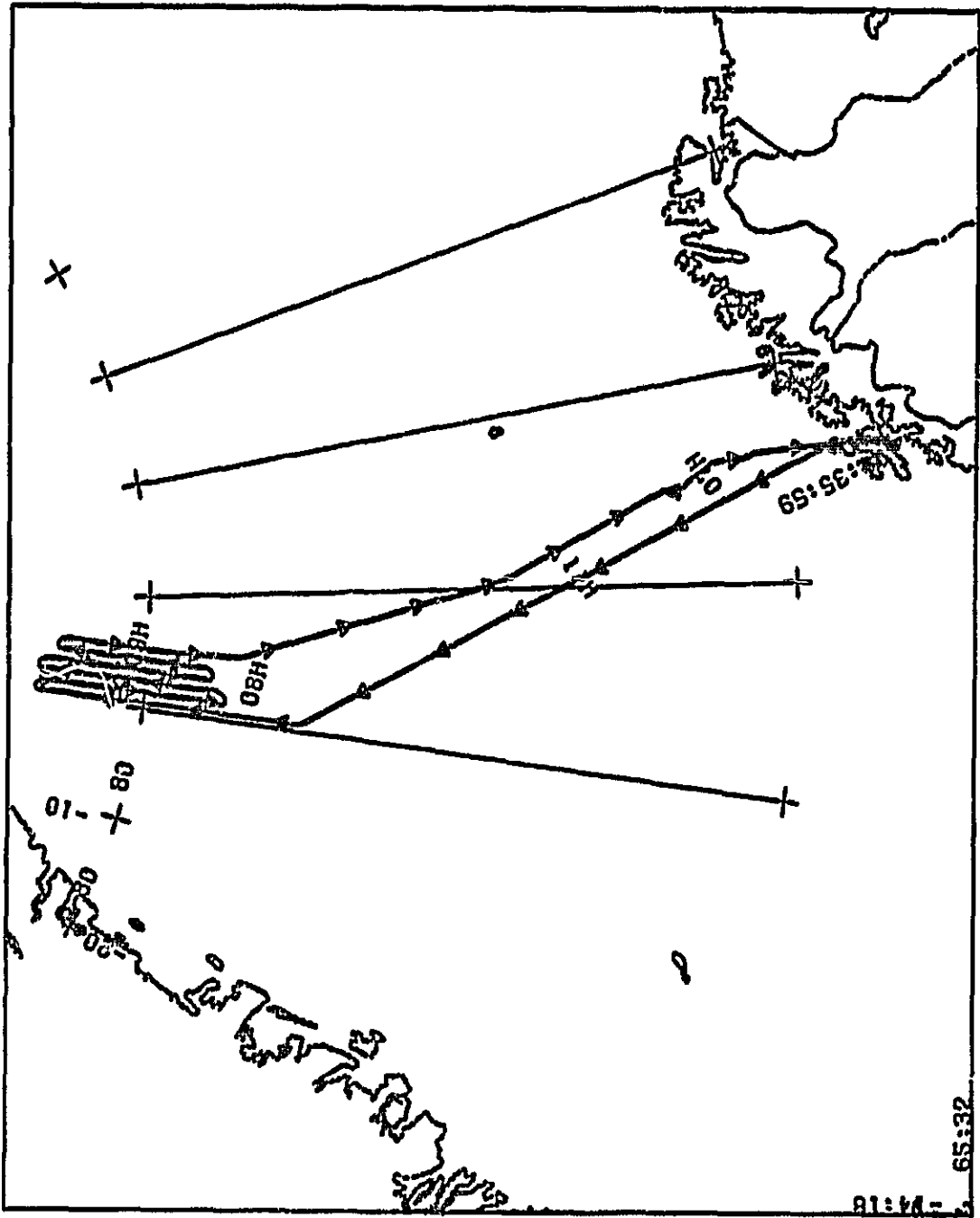
Aside from the annoying ADDAS dropouts which have now become commonplace, all instruments were operational. The data system dropouts have not as yet resulted in any significant loss of data.

Plan 'A' was flown from west to east, with the western edge of the mosaic image right along the Greenwich meridian, i.e. the flight track was along a line displaced 5 nm east of that meridian. It had been our prior custom to approach the MIZEX area along a straight line which becomes the first leg of the mosaic, and to start that straight-line approach at about $77^{\circ} 35' \text{N}$. Because of the most interesting circumstances elaborated upon below, we extended the first four legs southward at least 120 Km beyond the MIZEX ice edge, but at the expense of coverage in the northeastern part of the MIZEX box on legs 5 & 6. As it happens, this was no real sacrifice, since the sea ice was apparently at the melt point in that area.

While there were some radiometrically interesting features to the west (see below), this was definitely the day for ice edge observations! The MIZEX ice edge was quite compact and following its recent east/west sinusoidal undulations in tracks 5 & 6. A distinct change in orientation of the ice edge occurred in tracks 3 & 4, now running from southwest to northeast at a 45 degree slant across our tracks, still compact, and still undulating sinusoidally. In tracks 1 & 2, the ice edge was quite diffuse, and nearly merging with the following feature.

By far the most exciting feature was what gave the appearance of an explosion on the north/south ice edge along Greenland which projected some large ice floes (ca. 18 Km in extent) to the east at a rate of at least 35 Km in two days, since this floe pattern was further west in our prior flight two days earlier. There were two floes of that size which seemed to leave a trail of less compact ice behind them. There were about nine floes half of that size leaving similar trails. The shape of this event (including the less compact ice) is best described in terms of a running dog's head, with long ears flying overhead. The outline of the throat and chin went east and slightly south from $79^{\circ} 08' \text{N}$, 0°E with a well-defined, undulating edge for a distance of about 45 Km (center of swath 3). The lower jaw was ca. triangularly shaped with a maximum thickness of 8 Km. The mouth was open about 10 Km and the juncture of the upper & lower jaws was about 12 Km to the west (western edge of swath three). The upper roof of the mouth extended due east from that (at a latitude of $79^{\circ} 19' \text{N}$) to the nose some 36 Km to the east (eastern edge of swath 4). The nose was in fact one of the two largest floes described earlier. From there on, the outline of the dog's head becomes a bit diffuse, but the eyes and ears are all in swath three, extending northwards to within 18 Km of the compact MIZEX ice edge. A solitary long ice streamer 18 Km in extent was observed running parallel to the MIZEX edge (slanting at 45 degrees across the swath) at about 18 Km to the south; this appeared to be part of the 'dog' pattern. Some distinguishable multiyear ice signatures were observed in the western part of the microwave mosaic, again in complete accord with the concurrent SMMR image. Comparing with SMMR images in the area on earlier occasions, the multiyear signature observed is believed to be associated with ice just below the freeze point, since the SMMR multiyear fraction was significantly less than before.

ORIGINAL PAGE IS
OF POOR QUALITY



RT 6/26
01-10 80
65:32
65:35:59 TO 11:31:23 UT SCALE = 1:13.15E+06 TIME TICS EVERY 10.00 MINUTES
RT 6/26
65:32

Figure 18. Flight tracks: Evenes RT 6/26

ORIGINAL PAGE 16
OF POOR QUALITY

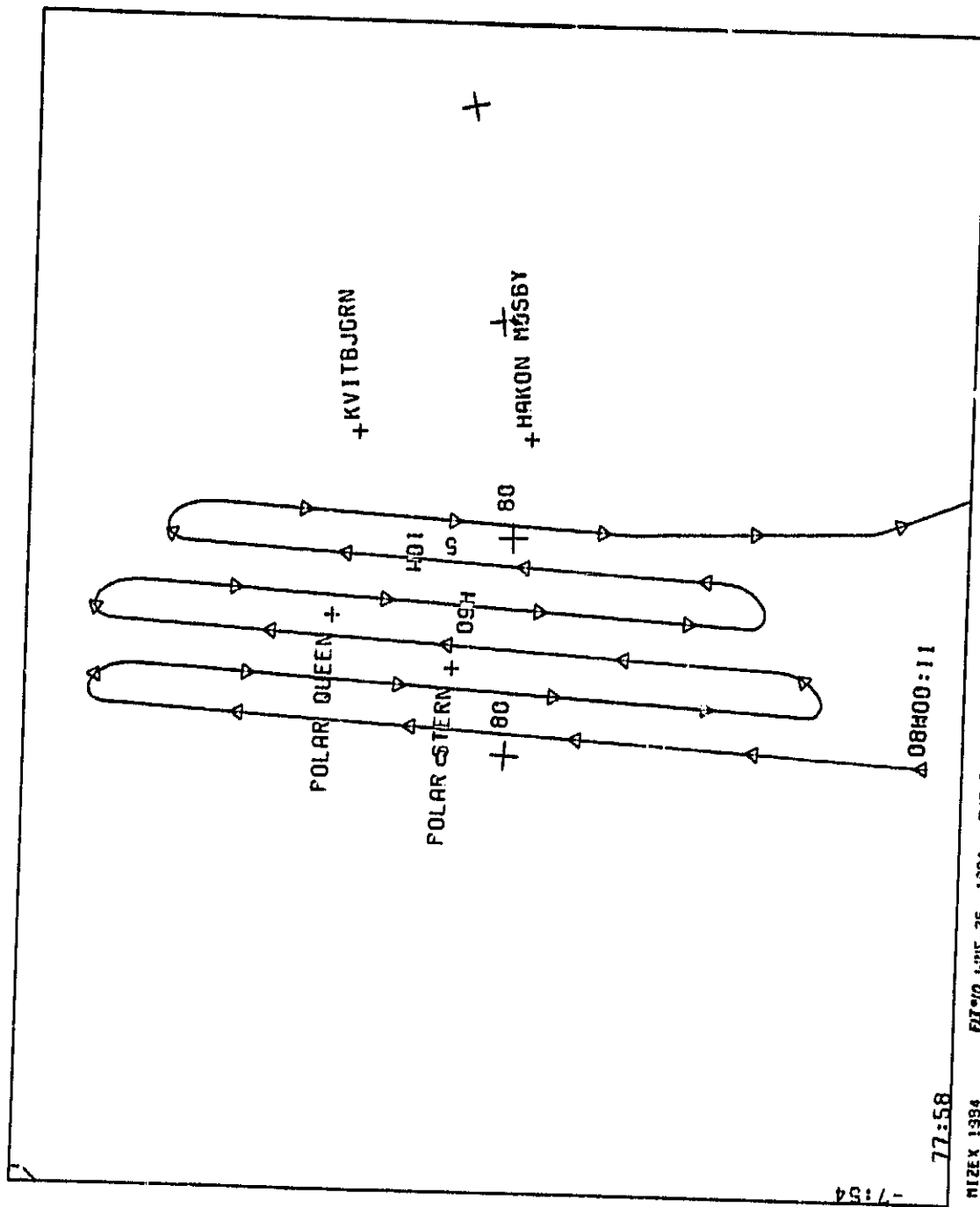


Figure 19. Mosaic pattern: 6/26

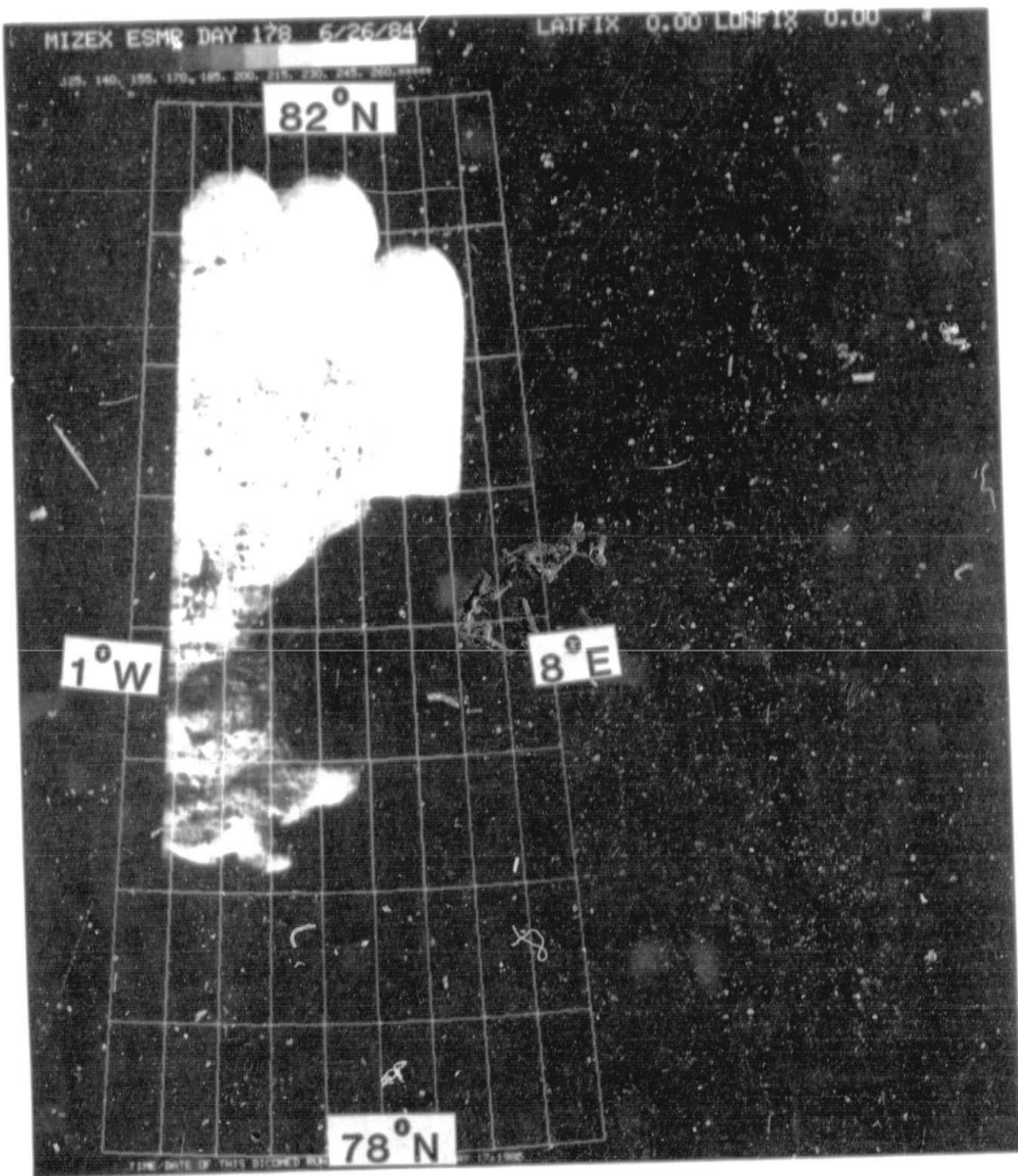


Figure 20. ESMR mosaic: 6/26

YEAR 1984	ADIDAS FLIGHT LOG	10	MIKEX	TEMP	TIME	LAT	LONG	SPD	DIR	ALT	PRES	RADAR	PITCH	ROLL	IR	AIR
178/06:43:22	69 02.5	015	59.6	0376	359.9	019	187	14962	14639	2.6	-0.4	7.2	-15.2	06 43 CO RADAR 3 CONTACTED.		
178/06:44:00	69 06.3	015	59.6	0376	359.9	015	183	14965	14637	2.7	-1.0	7.8	-15.5	FIRST REFLECTOR.		
178/06:44:22	69 08.6	015	59.8	0376	359.9	016	183	14957	14605	2.7	-1.0	17.5	-16.4	SECOND REFLECTOR.		
178/06:44:58	69 12.5	015	59.8	0375	359.9	016	185	14952	14531	2.8	-0.8	24.0	-15.8			
178/06:45:10	69 12.5	015	59.6	0375	350.0	017	185	14952	14312	2.8	-0.8	16.1	-16.5			
178/06:45:36	69 16.3	015	59.5	0375	359.8	018	185	14955	14732	2.7	-0.7	9.7	-16.0	TIED REFLECTOR.		
178/06:45:46	69 17.5	015	59.6	0375	359.6	017	187	14951	14696	2.9	-0.3	0.1	-15.6	REFLECTORS MASKED AGAINST INS.		
178/06:46:00	69 18.8	015	59.9	0375	359.8	018	187	14961	14715	2.8	-0.6	7.9	-16.5			
178/06:47:00	69 25.1	015	59.6	0377	359.2	020	174	14959	14742	3.8	-0.8	7.0	-17.0			
178/06:47:02	69 25.1	015	59.8	0378	350.5	019	174	15007	14765	4.4	-2.0	7.5	-17.0	END OF RUN 1	TIME	06:47:03
178/06:47:16	69 26.7	015	59.2	0378	345.0	019	187	15000	15223	6.7	-2.6	7.2	-15.3	CAMERA OFF AT THE MARK.		
178/06:48:00	69 30.7	015	59.2	0378	345.0	027	166	14953	14581	5.3	0.3	7.1	-19.1			
178/06:49:00	69 36.9	015	47.1	0406	340.5	033	166	10555	18274	5.4	-3.0	6.9	-24.2			
178/06:50:00	69 43.4	015	40.1	0419	337.0	037	166	20160	19587	4.5	-0.9	6.1	-27.9			
178/06:51:00	69 50.0	015	32.5	0435	336.0	046	172	21614	21303	5.0	-0.8	6.7	-29.8			
178/06:51:08	69 50.9	015	31.1	0437	336.1	048	171	21795	21483	4.3	-1.0	6.7	-29.6	SURFACE IS CLOUD FREE AT ME GO TOWARD THE MIKEX EDD.		
178/06:51:20	69 52.3	015	29.6	0443	335.9	055	169	21905	21579	3.0	-1.1	6.4	-29.9	CORRECTION: AS.		
178/06:52:00	69 55.7	015	23.9	0453	335.9	057	171	22785	22487	5.3	-1.1	6.4	-31.9			
178/06:53:00	70 03.9	015	15.5	0470	335.0	066	174	23902	23583	4.3	-0.9	5.9	-34.9			
178/06:53:28	70 07.1	015	11.5	0475	334.8	070	173	24497	24153	4.4	-0.9	5.5	-35.1	LOW LEVEL STRATOCUMULUS.		
178/06:53:44	70 09.1	015	09.1	0478	334.3	072	174	24912	24670	3.8	-1.0	5.2	-35.6	END 16N 1 57 CE FOLAR STEER.		
178/06:53:54	70 10.5	015	07.8	0481	334.2	072	176	24938	24643	3.1	-0.5	4.8	-37.2	END 42N 3 USE FOLAR GREEN.		
178/06:54:00	70 11.1	015	06.2	0482	334.1	072	176	25100	24757	4.2	-0.5	4.8	-37.6			
178/06:54:16	70 13.2	015	04.5	0484	334.0	075	177	25179	24941	4.4	-0.2	5.0	-35.6	KV - 80 3AN 7 ICE.		
178/06:55:00	70 18.6	014	57.3	0496	334.2	080	173	26093	25723	3.7	-0.8	4.9	-36.8	8N-79 55N 7 ICE.		
178/06:55:04	70 19.6	014	57.0	0496	334.4	082	173	26093	25723	4.4	-0.9	4.6	-38.1			
178/06:55:04	70 26.4	014	47.7	0507	334.4	085	171	27091	26718	4.1	-0.7	4.5	-38.3	10/10 STRATOCUMULUS.		
178/06:56:14	70 29.4	014	45.5	0509	333.8	084	172	27528	26971	4.3	-0.9	4.3	-40.0			
178/06:57:00	70 34.1	014	38.1	0511	333.3	082	171	28192	27829	4.2	-1.0	4.4	-40.4	ED - 80 2CN 3 165.		
178/06:57:44	70 40.0	014	30.5	0515	334.8	080	167	28915	28581	3.2	-1.0	4.0	-42.3	GEORGIA TECH IS HAVING SOME PROBLEMS WITH THEIR EQUIPMENT.		
178/06:58:00	70 45.0	014	21.8	0520	334.0	077	167	30128	29737	2.0	-0.8	3.0	-45.0			
178/06:59:28	70 52.9	014	12.8	0532	334.5	076	169	30523	30104	3.5	-0.7	3.7	-47.5	10/10 STRATOCUMULUS, 6/10 ALTISTRATUS.		
178/07:00:00	70 57.9	014	07.0	0531	334.5	072	169	31050	30626	4.1	-0.7	3.6	-48.0			
178/07:01:00	71 00.8	014	03.6	0515	334.7	057	172	31684	31220	4.9	-0.5	0.2	-48.3	5/3 - 15		
178/07:01:22	71 05.5	013	56.5	0510	334.6	051	175	32344	31947	2.7	-0.8	3.4	-49.3	N/P 5° 69-11.1 16 CO.1E INSTEAD OF 16 04-5E.		
178/07:02:08	71 05.8	013	55.3	0511	335.1	051	166	32377	31922	2.9	-0.7	2.5	-46.6			
178/07:02:10	71 13.6	013	48.2	0516	334.9	048	167	32737	32547	2.8	-0.9	2.2	-46.6			
178/07:03:00	71 21.3	013	35.3	0518	334.3	049	171	32931	32500	2.4	-1.3	2.2	-45.9			
178/07:03:08	71 22.5	013	33.5	0518	334.2	047	170	32953	32518	2.2	-0.1	1.6	-45.6	AT 33:00CFT.		
178/07:04:00	71 29.1	013	24.0	0512	334.0	047	162	32926	32500	2.4	-0.4	0.3	-47.0			
178/07:05:00	71 44.9	013	02.1	0509	334.0	045	170	32947	32494	2.4	-0.4	0.3	-45.3			
178/07:06:32	71 48.9	012	56.0	0508	334.0	044	172	32976	32503	2.5	-0.3	1.9	-47.9	10/10 STRATOCUMULUS, 5/10 ALTISTRATUS.		
178/07:07:00	71 52.3	012	50.4	0508	334.1	045	168	32994	32506	2.5	-0.9	1.8	-46.3			
178/07:08:00	72 00.0	012	39.5	0505	333.0	045	174	32993	32499	2.3	-0.7	2.9	-48.0			
178/07:09:00	72 07.0	012	27.8	0505	333.1	044	172	32959	32444	2.6	-1.0	3.2	-47.3			
178/07:10:00	72 15.2	012	15.9	0504	333.2	044	169	32975	32472	2.6	-0.7	3.7	-46.8			
178/07:11:00	72 22.9	012	04.3	0504	333.1	044	169	32967	32470	2.6	-0.7	2.5	-46.9			
178/07:12:00	72 30.4	011	52.6	0505	333.4	042	169	32958	32491	2.4	-1.0	5.3	-45.8			
178/07:12:12	72 32.0	011	40.2	0505	333.0	040	169	32951	32462	2.7	-1.1	4.0	-46.4	2 PRIDE - 81 34.6 LOW 2 51.7E.		
178/07:12:50	72 38.0	011	29.1	0505	332.9	040	166	32942	32458	2.5	-0.3	3.8	-46.2	NO REAL TIME HIDE - 07 05 CO GEORGIA TECH.		
178/07:13:00	72 43.5	011	26.2	0505	332.9	040	168	32942	32455	2.4	-0.2	13.7	-46.0			
178/07:15:00	72 53.0	011	15.9	0506	332.4	038	170	32950	32453	2.4	-0.6	9.2	-47.2			
178/07:16:00	73 00.0	011	02.8	0505	332.5	038	171	32975	32445	2.5	-0.2	9.5	-45.7			
178/07:17:00	73 08.2	010	50.2	0505	331.7	036	173	32962	32400	2.3	-1.0	11.8	-45.8	PROGRESS OF CLOUD LAYER IS INCREASING 10/10 STRATOCUMULUS.		
178/07:17:46	73 13.9	010	40.4	0505	331.8	036	174	32966	32429	2.3	-0.6	10.7	-46.5			
178/07:17:54	73 16.9	010	38.2	0505	331.5	037	176	32970	32368	2.5	-1.1	11.5	-46.5	5/ 010 CUMULUS AS WE PROCEED NORTH.		

C-2

ORIGINAL REPORT
OF POOR QUALITY

YEAR	1984	ADDRAS	FLIGHT NO.	10	10	MIKEX	TIME	--LAT--	--10 E--	SPD	HEAD	DIR	ALTITUDE	PRES	RADAR	PTCH	ROLL	IR	TEMP	
178/07/18:00	73	15.6	010	37.1	0504	331.4	035	178	32989	32618	2.3	-1.3	-12.7	-47.7	3	STAGE INTO ASC.				
178/07/18:18	73	17.9	010	33.3	0504	331.4	033	176	32977	32402	2.4	-0.2	-15.7	-48.0	2	FRONT CHECK BETWEEN ADDRAS AND MCC OKAY.				
178/07/19:00	75	21.0	010	23.8	0503	331.4	033	176	32935	32811	2.2	-0.5	-10.9	-46.6	2					
178/07/19:58	73	30.4	010	11.0	0503	331.2	034	176	32969	32368	2.2	-0.7	-16.8	-47.2	2					
178/07/20:00	73	30.6	010	10.4	0503	331.2	034	176	32956	32618	2.2	-0.8	-15.8	-46.6	2					
178/07/21:00	73	28.0	009	58.0	0502	331.5	033	171	32955	32377	2.5	-1.2	-15.7	-46.8	2					
178/07/22:00	73	28.0	009	43.2	0501	331.9	032	171	32999	32391	2.2	-0.4	-14.9	-47.1	2					
178/07/22:00	73	53.1	009	43.2	0501	331.9	032	171	32999	32391	2.2	-0.4	-14.9	-47.1	2					
178/07/23:00	73	53.1	009	17.7	0500	331.5	031	171	32982	32394	2.1	0.1	-17.5	-45.5	2					
178/07/24:00	74	00.4	009	17.7	0500	331.5	031	171	32987	32374	2.1	0.1	-14.8	-48.5	2					
178/07/25:00	74	07.1	009	03.6	0499	331.2	031	172	32976	32348	2.4	-0.4	-12.3	-49.1	2					
178/07/26:00	74	15.1	009	49.7	0498	331.1	035	171	32957	32355	2.3	0.0	-11.8	-45.9	2					
178/07/27:00	74	28.4	009	35.6	0498	330.9	033	170	32979	32361	2.5	-0.5	-7.8	-48.1	2					
178/07/28:00	74	29.6	009	21.1	0499	330.6	033	172	32963	32313	2.4	-0.6	-8.4	-47.1	2					
178/07/29:00	74	37.0	009	06.4	0499	330.0	032	179	32981	32309	2.2	-0.6	-5.7	-49.9	2					
178/07/30:00	74	44.3	007	51.4	0500	328.7	031	173	32987	32297	2.2	1.1	-5.0	-48.2	2					
178/07/31:00	74	51.1	007	29.3	0499	328.0	031	175	32969	32326	2.2	-0.7	-11.9	-48.3	2					
178/07/31:28	74	58.4	007	26.7	0498	328.6	035	177	32974	32276	2.4	-0.6	-7.1	-47.2	2					
178/07/32:00	74	58.9	007	21.2	0498	328.6	034	184	32965	32271	2.4	-0.6	-14.3	-47.8	2					
178/07/33:00	75	06.1	007	05.5	0496	328.5	033	180	32960	32270	2.5	-0.7	-5.0	-46.5	2					
178/07/34:00	75	23.1	006	59.6	0494	328.8	033	175	32975	32259	2.3	-0.7	-5.3	-49.4	2					
178/07/35:00	75	28.4	006	33.6	0493	328.0	030	191	32970	32244	2.2	-0.6	-5.6	-49.0	2					
178/07/36:00	75	27.5	006	17.6	0491	327.4	029	183	32956	32252	2.5	-1.3	-5.4	-48.2	2					
178/07/37:00	75	34.5	006	00.9	0489	327.5	031	188	32978	32249	2.4	-0.5	-5.8	-48.8	2					
178/07/38:00	75	41.6	005	44.4	0488	327.4	031	181	32980	32247	2.5	-0.7	-5.7	-49.1	2					
178/07/39:43	00	00.0	000	00.0	000	000	000	000	000	000	2.2	-0.5	-0.7	-47.5	2					
178/07/40:01	75	55.5	005	10.7	0483	326.4	034	187	32963	32217	2.5	-0.4	-5.9	-48.0	2					
178/07/40:09	75	56.6	005	08.0	0483	326.3	032	189	32960	32225	2.4	-1.1	-6.2	-48.1	2					
178/07/41:01	76	02.6	004	52.9	0483	325.7	035	193	32974	32191	2.4	-0.8	-6.2	-49.3	2					
178/07/42:01	76	09.5	004	35.5	0489	325.0	034	196	32979	32206	2.3	-0.4	-5.6	-48.4	2					
178/07/43:01	76	16.4	004	17.6	0489	328.8	035	198	32981	32177	2.3	-0.6	-4.8	-48.1	2					
178/07/44:01	76	23.3	003	59.1	0491	328.4	036	194	32983	32174	2.2	-0.9	-5.7	-48.2	2					
178/07/45:01	76	30.0	003	00.3	0491	328.1	035	191	32974	32168	2.4	-0.7	-5.5	-47.5	2					
178/07/46:01	76	36.9	003	21.7	0492	325.8	036	191	32975	32149	2.4	0.0	-5.5	-47.5	2					
178/07/47:01	76	43.9	003	02.0	0491	323.3	037	194	32986	32149	2.3	-0.8	-5.1	-46.0	2					
178/07/48:01	76	50.6	002	42.5	0480	323.0	037	197	32970	32167	2.4	-0.7	-4.7	-45.7	2					
178/07/48:29	76	57.4	002	32.7	0489	322.9	034	199	32982	32153	2.2	-0.6	-4.6	-46.3	2					
178/07/49:01	76	57.4	002	23.1	0489	323.0	035	196	32969	32120	2.5	-0.5	-4.7	-45.1	2					
178/07/50:01	77	04.2	002	02.2	0487	322.4	034	200	32976	32129	2.1	-1.2	-4.5	-46.2	2					
178/07/50:35	77	08.2	001	50.3	0487	321.9	035	199	32969	32112	2.6	-0.8	-4.7	-45.2	2					
178/07/51:01	77	10.6	001	42.3	0486	321.8	035	197	32971	32102	2.4	-0.6	-4.5	-45.2	2					
178/07/52:01	77	18.1	001	11.0	0485	321.2	034	200	32976	32101	2.3	-1.0	-4.8	-45.7	2					
178/07/53:01	77	24.1	001	00.0	0484	320.9	040	201	32966	32096	2.3	-1.5	-4.9	-45.7	2					
178/07/54:01	77	30.7	000	38.7	0483	320.8	037	198	32974	32087	2.4	-0.7	-4.2	-42.0	2					
178/07/55:01	77	36.0	000	24.3	0494	353.7	034	197	32946	32060	2.6	8.4	-4.0	-45.1	2					
178/07/56:01	77	46.2	000	24.3	0493	350.1	033	197	32977	32103	2.4	-1.5	-3.9	-43.9	2					
178/07/57:01	77	54.3	000	25.1	0492	359.1	035	197	32969	32068	2.6	-0.7	-3.9	-44.2	2					
178/07/58:01	78	02.3	000	25.4	0492	358.5	037	200	32968	32100	2.5	-0.7	-3.9	-44.2	2					
178/07/58:41	78	08.0	000	25.4	0491	358.9	037	197	32972	32093	2.5	-0.7	-3.8	-44.2	2					
178/07/59:01	78	14.8	000	25.4	0491	358.9	036	197	32972	32093	2.5	-0.7	-3.8	-44.2	2					
178/08/00:01	78	19.8	000	25.4	0491	359.0	036	195	32976	32077	2.7	-0.5	-3.9	-44.2	2					
178/08/00:13	78	26.8	000	25.7	0491	359.1	035	193	32972	32083	2.4	-0.4	-3.9	-44.2	2					
178/08/01:01	78	26.8	000	26.3	0490	359.1	035	199	32978	32074	2.5	-0.9	-2.9	-42.7	2					
178/08/02:01	78	35.2	009	26.3	0490	359.1	036	196	32965	32079	2.7	-0.6	-4.0	-43.3	2					
178/08/03:01	78	43.2	000	26.6	0490	359.1	034	197	32976	32080	2.7	-0.8	-4.0	-44.3	2					
178/08/04:01	78	51.2	000	27.2	0490	359.4	032	196	32981	32048	2.4	-0.8	-4.0	-45.4	2					
178/08/05:01	79	07.0	000	27.3	0490	359.2	033	196	32982	32037	2.7	-0.2	-4.1	-43.3	2					
178/08/05:57	79	07.0	000	27.3	0489	359.2	031	201	32975	32036	2.4	-0.3	-4.3	-43.5	2					

NOTE - HEIGHT OF CIRRUS IS INCREASING 10/10 STRATOCUMULUS.
8/10 CUMULUS.

LOW CELL IS TO THE EAST OF US.
LOW PRESSURE CENTER IS EAST OF US.

ADDRAS HEAT DOWN ABOUT 07 38 35 AND BACK UP AT 07 39 50.

MIKEX BOX - 10/10 STRATOCUMULUS - AS WE APPROACH THE BOX.

PROCEED NORTH THERE ARE SOME BREAKS IN THE STRATOCUMULUS.

NO ALTOSTRATUS NOW.

BOTH CIRRUS WILL BE USED CIRRUS RUNS - ON THE MIKEX BOX.

SEEKING ICE EDGE ON THE RADAR.

10/10 STRATOCUMULUS AS WE APPROACH THE MIKEX BOX.

OVER EDGE OF ICE PACK.

YEAR 1984	ADIDAS	FLIGHT LOG	LONG	FLIGHT NR.	10	HIZES	GRD VEUE	SPD	DIR	PHES	RADAR	PITCH	ROLL	IR	TEMP	AIR
178/09:08:26	81	19.0	002	47.9	0499	021.9	026	193	32973	31913	2.0	-0.7	-5.5	-4.0	10/10	STRATOCUMULUS AS HE APPROACH THE END OF THIS RUN.
178/09:09:00	81	23.7	002	49.5	0453	022.0	029	197	32962	31890	2.0	-0.5	-5.8	-4.0		
178/09:10:00	81	28.4	002	51.3	0416	022.5	026	195	32971	31923	2.2	-1.5	-5.2	-4.1		
178/09:11:00	81	33.9	003	54.4	0460	024.6	048	181	32959	31968	2.3	-4.1	-7.2	-4.1		END OF RUN 4 TIME 09.10.15 LAT 01.4.2 N LON C0253.0 E FL 329
178/09:12:00	81	35.6	003	44.9	0431	023.9	040	195	32864	31835	2.6	15.7	-5.8	-4.1		STRATOCUMULUS DECK GOES ALL THE WAY TO SWALBARD.
178/09:13:00	81	34.7	003	55.8	0428	023.8	040	194	32949	31911	2.1	3.2	-5.8	-4.2		10/10 STRATOCUMULUS AS HE START THE RUN.
178/09:14:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		*** START OF RUN 5 TIME 09.13.15 LAT 01.4.0 N LON C0354.8 E FL 329
178/09:15:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:16:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:17:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:18:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:19:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:20:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:21:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:22:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:23:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:24:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:25:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:26:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:27:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:28:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:29:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:30:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:31:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:32:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:33:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:34:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:35:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:36:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:37:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:38:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:39:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:40:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:41:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:42:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:43:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:44:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:45:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:46:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:47:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:48:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:49:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		
178/09:50:00	81	26.0	003	54.8	0428	023.8	040	194	32956	31926	2.2	0.4	-6.0	-4.1		

ORIGINAL PAGE IS
OF POOR QUALITY

YEAR 1984 ADDAS FLIGHT LOG										FLIGHT NO. 10										HIZEX									
TIME		LAT		LONG		GRD TRUE		MAG		ALTITUDE		PITCH		ROLL		TEMP		IR		AIR									
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---							
178/11:34:00	70 30.4	016 04.1	0354	169.7	092	160	30978	30707	1.0	9.8	7.2	-47.2																	
178/11:35:00	70 24.2	016 04.6	0360	172.4	092	158	30978	30856	1.6	9.7	7.1	-46.5																	
178/11:36:00	70 18.7	016 04.9	0361	172.3	091	157	30979	30838	1.5	9.7	7.8	-46.6																	
178/11:38:00	70 08.2	016 03.9	0363	176.2	089	157	30938	30623	1.6	9.5	6.0	-43.0																	
178/11:39:00	70 07.4	016 03.5	0363	176.4	090	156	30951	30640	1.5	9.9	9.1	-48.0																	
178/11:40:00	69 54.4	016 03.5	0363	175.6	091	157	30945	30626	1.6	9.9	8.3	-47.8																	
178/11:41:00	69 48.2	016 03.4	0364	175.6	088	154	30930	30607	1.8	9.7	8.7	-48.2																	
178/11:42:00	69 42.2	016 03.2	0364	176.2	087	153	30959	30626	1.8	9.7	9.0	-48.1																	
178/11:43:00	69 36.2	016 02.9	0364	174.8	089	152	30949	30607	1.4	9.5	8.3	-47.6																	
178/11:44:00	69 50.0	016 03.2	0364	173.8	090	153	30962	30631	1.5	1.3	8.8	-49.3																	
178/11:45:00	69 23.2	016 03.2	0365	174.5	089	153	30929	30621	1.5	9.9	7.2	-47.1																	
178/11:46:00	69 17.3	016 03.2	0366	175.3	092	153	30944	30710	1.3	9.7	15.2	-49.0																	
178/11:46:04	69 17.3	016 03.2	0366	175.3	092	153	30944	30710	1.5	1.1	21.0	-48.1																	
178/11:46:56	69 13.2	016 03.0	0368	175.4	091	153	30949	30357	1.4	9.8	17.3	-47.8																	
178/11:47:00	69 11.6	016 02.9	0368	174.9	088	153	30960	30552	1.2	9.8	21.6	-50.1																	
178/11:47:24	69 09.4	016 03.0	0369	174.5	091	153	30946	30494	1.2	9.2	22.3	-47.6																	
178/11:47:5	70 69 05.6	016 02.9	0360	171.7	094	150	30971	30608	3.1	26.6	23.8	-47.9																	
178/11:48:06	69 05.0	016 03.3	0350	164.1	094	150	30996	30646	1.8	23.9	6.0	-48.3																	
178/11:48:12	69 04.5	016 03.0	0339	155.4	096	148	30968	30645	2.8	29.0	15.4	-48.7																	
178/11:49:00	69 00.7	016 07.9	0330	181.0	086	152	29946	29644	3.4	1.1	8.8	-44.4																	
178/11:50:00	68 54.6	016 06.4	0394	183.3	059	167	24372	25968	6.2	2.1	10.1	-53.7																	
178/11:51:00	68 47.8	016 05.7	0420	180.1	034	171	10730	18308	4.7	0.7	9.7	-21.7																	
178/11:52:00	68 41.0	016 05.3	0395	183.3	026	160	14373	14608	4.5	1.1	13.2	-13.6																	
178/11:52:00	68 34.6	016 04.9	0372	180.2	017	164	10278	7235	3.9	1.2	9.5	-6.0																	
178/11:54:00	68 28.9	016 04.8	0316	179.9	012	164	6114	7315	1.9	1.1	19.7	-1.4																	
178/11:55:00	68 24.3	016 06.6	0275	182.9	004	156	6164	6002	1.9	20.8	11.4	-1.3																	
178/11:56:00	68 23.7	016 16.9	0221	173.7	005	189	4338	4183	5.4	2.4	8.4	-5.8																	
178/11:57:00	68 24.8	016 25.4	0179	070.5	005	263	3000	2849	2.5	0.8	9.6	10.5																	
178/11:58:00	68 25.7	016 32.9	0176	070.7	009	250	2240	2074	2.0	7.1	10.9	10.9																	
178/11:59:00	68 26.7	016 40.8	0169	069.5	005	263	1627	1249	0.8	2.3	12.0	15.8																	
178/12:00:00	68 29.7	016 44.6	0158	355.2	010	197	517	12255	2.3	0.4	13.2	17.3																	

LAT 6923.3 N LON 01603.3 E FL 539

11.45.09

TIME

*** START OF RUN 9

11 46 00.

FIRST REFLECTOR.

11 46 43.

SECOND REFLECTOR.

11 47 20.

THIRD REFLECTOR -

11 47 30.

END OF RUN 9

11.40.05

LAT 6923.0 N LON 01603.3 E FL 539

11.40.05

TIME

END OF RUN 9

11 48 00.

CAMERAS OFF

11 48 00.

3.8 Seventh Data Flight—Day 180—Evenes RT

All instruments were operational.

Pattern 'D' was flown over Nordaustlandet. The left-over time was used to fly a straight-line transect between $80^{\circ} 20' N$, $15^{\circ} 00' E$ to west of the estimated position of the Polarstern, $80^{\circ} 20' N$, $5^{\circ} 00' W$. We returned on a parallel line 5 nm north of that to the $0^{\circ} 30.8'$ meridian and headed south along one of the tracks flown on Day 178 to a latitude of $79^{\circ} 30'$, the predicted location of the northern edge of the eddy, and then headed east. Because of anticipated strong headwinds on the return home, we were able to execute only a single transect of the large eddy region observed two days earlier.

Nordaustlandet was about 95% cloud-covered, so photographic coverage was quite limited. Microwave signatures indicated that the upper layer of the ice cap was near the melt point, and so the signature was monotonous.

The east/west transect over the sea ice was clear, and afforded the opportunity for some excellent photography of sea ice. The lack of cloud cover also resulted in below-freezing ice temperatures and the strongest multiyear microwave signatures observed so far on this mission.

We were not so fortunate in our attempts to obtain microwave imagery of the large eddy, since it had drifted southwards and outside of the preselected imager swath. It was easily observed visibly, however, with about the same eastward extent as before. Hopefully, the 45° metric camera also captured an image of it to permit more precise placement on subsequent analysis.

PRECEDING PAGE BLANK NOT FILMED

ORIGINAL PAGE IS
OF POOR QUALITY

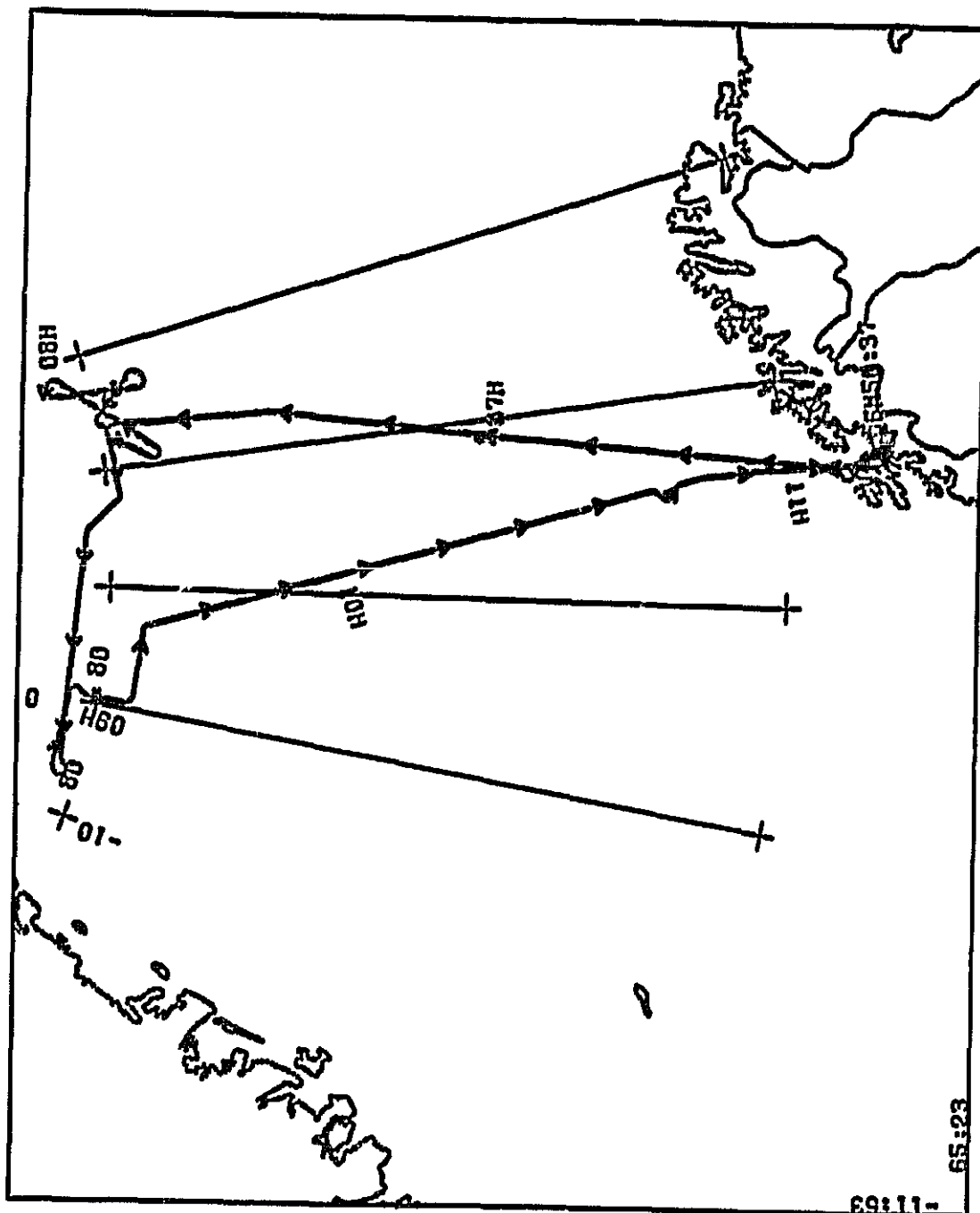
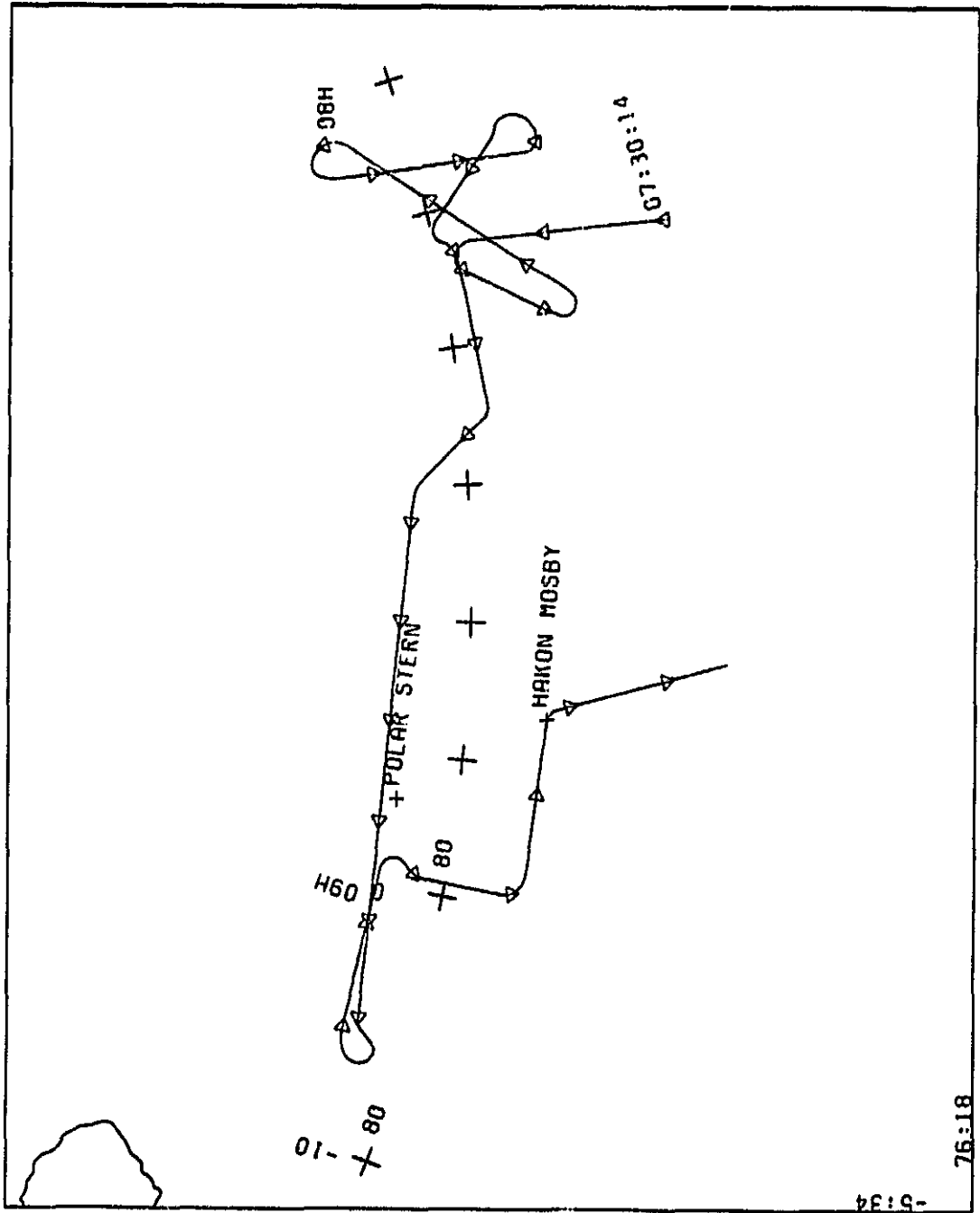


Figure 21. Flight tracks: Evenes RT 6/28

ORIGINAL PAGE IS
OF POOR QUALITY



76:18
-5:34
MIZEX '84 FLY #11 JUNE 28, 1984 EVENES LOCAL
7:30:04 TO 9:05:12 UT SCALE = 1:3,33E-06 TIME TICS EVERY 5.00 MINUTES

Figure 22. Survey pattern: 6/28

YEAR 1994 ADDAS FLIGHT LOG --- FLIGHT NO. 11 --- ALTITUDE --- HIZEX

Table with columns: TIME, LAT, LONG, SPD, DIR, PRES, RADAR, SFO, TRUE, HD, SFD, DIR, PRES, RADAR, FLIGHT NO., ALTITUDE, HIZEX, IR, AIR, PITCH, ROLL. Includes flight data for ADDAS flights and notes like 'LAT 60 25N LON 3 17.0N POLAR STEER'.

ADIDAS COM ON 07 30 23 BACK 1/P 07 31 31. START WIDE DATA RUN 07 29 00.

ADIDAS COM ON 07 30 23. ADDAS COM ON 07 30 23. CAMERA ON 07 30 00.

ADIDAS COM ON 07 30 23. ADDAS COM ON 07 30 23. CAMERA ON 07 30 00.

ADIDAS COM ON 07 30 23. ADDAS COM ON 07 30 23. CAMERA ON 07 30 00.

ADIDAS COM ON 07 30 23. ADDAS COM ON 07 30 23. CAMERA ON 07 30 00.

ADIDAS COM ON 07 30 23. ADDAS COM ON 07 30 23. CAMERA ON 07 30 00. LAT 7506.2 N LON 02516.3 E FL 329

ADIDAS COM ON 07 30 23. ADDAS COM ON 07 30 23. CAMERA ON 07 30 00. LAT 7506.3 N LON 02516.3 E FL 329

ADIDAS COM ON 07 30 23. ADDAS COM ON 07 30 23. CAMERA ON 07 30 00. LAT 7506.4 N LON 02516.4 E FL 329

ADIDAS COM ON 07 30 23. ADDAS COM ON 07 30 23. CAMERA ON 07 30 00. LAT 7506.5 N LON 02516.5 E FL 329

ADIDAS COM ON 07 30 23. ADDAS COM ON 07 30 23. CAMERA ON 07 30 00. LAT 7506.6 N LON 02516.6 E FL 329

ADIDAS COM ON 07 30 23. ADDAS COM ON 07 30 23. CAMERA ON 07 30 00. LAT 7506.7 N LON 02516.7 E FL 329

ADIDAS COM ON 07 30 23. ADDAS COM ON 07 30 23. CAMERA ON 07 30 00. LAT 7506.8 N LON 02516.8 E FL 329

ADIDAS COM ON 07 30 23. ADDAS COM ON 07 30 23. CAMERA ON 07 30 00. LAT 7506.9 N LON 02516.9 E FL 329

ADIDAS COM ON 07 30 23. ADDAS COM ON 07 30 23. CAMERA ON 07 30 00. LAT 7507.0 N LON 02517.0 E FL 329

ORIGINAL PAGE IS
OF POOR QUALITY

YEAR: 1984 ADDAS FLIGHT LOG --- FLIGHT NO. 11 --- MIXER
 ---TIME--- --LAT-- --LONG-- --HDG-- --ALT-- --MIXER
 SPD TRK HDG SPD OIR PRES RADAR FTCH WIND IR AIR

180/09:54:00 77 21.8 010 20.4 0428 162.9 030 158 32957 32593 2.0 -0.5 -1.3 -47.3
 180/09:55:00 77 14.6 010 19.4 0426 162.7 030 151 32962 32640 2.0 -0.8 -0.7 -47.1
 180/09:56:00 77 08.1 010 19.4 0427 163.0 033 154 32961 32569 2.0 -1.0 -0.9 -49.1
 180/09:57:00 77 01.3 010 47.7 0428 163.0 031 151 32974 32615 1.8 -0.7 -1.3 -46.6
 180/09:58:00 76 54.4 010 56.8 0428 162.7 029 146 32944 32602 1.9 -0.9 -2.2 -46.0
 180/09:59:00 76 47.6 011 05.6 0431 162.5 030 140 32970 32584 1.8 -1.2 -7.9 -46.7
 180/10:00:00 76 40.7 011 13.9 0434 162.8 027 145 32979 32601 1.9 -0.9 -5.4 -48.3
 180/10:01:00 76 33.6 011 22.9 0437 163.0 028 143 32965 32607 1.9 -1.0 -2.5 -48.3
 180/10:02:00 76 26.4 011 30.2 0439 163.3 028 143 32942 32579 1.9 -0.7 -2.2 -47.7
 180/10:03:00 76 26.6 011 31.1 0439 163.4 028 143 32954 32572 1.8 -0.8 -2.2 -46.8
 180/10:04:00 76 19.7 011 39.1 0440 163.4 032 146 32967 32567 1.8 -0.7 -4.2 -46.3
 180/10:05:00 76 12.7 011 47.6 0440 163.2 031 140 32974 32599 1.8 -0.8 -2.8 -47.7
 180/10:06:00 76 05.6 011 55.4 0439 163.6 032 147 32964 32585 1.6 -0.7 -2.8 -47.6
 180/10:07:00 75 51.6 012 10.7 0435 163.9 033 147 32951 32573 1.8 -0.6 -3.1 -45.4
 180/10:08:00 75 44.6 012 18.2 0434 164.0 032 147 32969 32600 1.6 -1.4 -2.6 -47.0
 180/10:09:00 75 37.6 012 25.8 0432 163.5 035 142 32958 32577 1.8 -1.1 -2.7 -45.4
 180/10:10:00 75 30.6 012 32.9 0431 163.8 036 144 32965 32569 1.8 -0.9 -3.0 -45.2
 180/10:11:00 75 23.7 012 40.2 0432 164.0 035 145 32965 32569 1.5 -0.7 -3.3 -47.0
 180/10:12:00 75 16.9 012 47.1 0431 164.1 033 144 32959 32569 1.6 -0.9 -2.3 -48.2
 180/10:13:00 75 09.7 012 54.3 0431 164.6 035 148 32973 32592 1.6 -1.1 -2.1 -45.1
 180/10:14:00 75 02.6 012 62.1 0431 164.5 036 148 32965 32592 1.5 -0.7 -2.6 -46.1
 180/10:15:00 75 05.0 012 69.3 0431 164.2 036 148 32965 32579 1.5 -0.7 -2.6 -46.1
 180/10:16:00 74 42.1 013 16.2 0429 165.0 037 152 32973 32553 1.7 -0.7 -2.3 -45.7
 180/10:17:00 74 42.0 013 20.6 0429 165.1 034 151 32954 32578 1.6 -0.7 -2.3 -45.7
 180/10:18:00 74 35.3 013 26.8 0429 165.2 036 149 32966 32554 1.9 -0.5 -1.9 -46.2
 180/10:19:00 74 28.3 013 33.4 0428 165.4 035 151 32974 32538 1.9 -0.7 -2.9 -45.9
 180/10:20:00 74 21.4 013 39.4 0428 165.5 036 153 32964 32514 1.8 -0.9 -3.2 -44.9
 180/10:21:00 74 14.5 013 45.4 0427 165.9 038 157 32967 32536 1.9 -0.8 -2.8 -46.6
 180/10:22:00 74 07.4 013 51.4 0427 165.5 037 153 32962 32549 1.6 -0.6 -3.0 -45.2
 180/10:23:00 74 00.7 013 57.3 0427 165.6 036 149 32958 32503 1.9 -0.7 -3.0 -44.3
 180/10:24:00 72 02.9 0426 162.7 036 150 32958 32515 1.9 -0.5 -4.1 -44.5
 180/10:25:00 72 05.8 0426 162.7 037 150 32961 32505 1.8 -0.7 -3.7 -42.5
 180/10:26:00 72 08.8 0426 162.7 037 149 32961 32500 1.8 -0.7 -3.6 -42.5
 180/10:27:00 72 11.8 0426 162.7 037 147 32962 32495 1.8 -0.6 -2.6 -43.9
 180/10:28:00 72 14.8 0426 162.7 037 147 32973 32463 1.3 -1.1 -3.0 -43.3
 180/10:29:00 72 17.8 0426 166.3 037 153 32963 32469 1.6 -0.8 -2.0 -45.2
 180/10:30:00 72 20.8 0426 166.3 038 152 32964 32479 1.7 -0.7 -1.5 -44.3
 180/10:31:00 72 23.8 0426 166.0 038 147 32965 32474 1.7 -0.7 1.9 -43.1
 180/10:32:00 72 26.8 0426 166.0 038 146 32960 32431 1.6 -0.7 -3.1 -45.0
 180/10:33:00 72 29.8 0426 165.9 038 147 32960 32441 1.8 -0.7 -2.8 -44.8
 180/10:34:00 72 32.8 0426 165.8 039 147 32951 32426 1.6 -0.6 -2.6 -44.0
 180/10:35:00 72 35.8 0426 165.7 041 146 32966 32416 1.6 -0.7 -2.6 -44.4
 180/10:36:00 72 38.8 0426 165.6 041 146 32966 32419 1.7 -0.6 -3.7 -44.9
 180/10:37:00 72 41.8 0426 165.5 038 147 32956 32429 1.5 -1.1 -4.1 -43.5
 180/10:38:00 72 44.8 0426 165.4 038 147 32960 32441 1.8 -0.7 -2.8 -44.8
 180/10:39:00 72 47.8 0426 165.3 038 147 32951 32426 1.6 -0.6 -2.6 -44.0
 180/10:40:00 72 50.8 0426 165.2 038 147 32951 32426 1.6 -0.6 -2.6 -44.0
 180/10:41:00 71 53.8 0426 165.1 038 147 32951 32426 1.6 -0.6 -2.6 -44.0
 180/10:42:00 71 56.8 0426 165.0 038 147 32951 32426 1.6 -0.6 -2.6 -44.0
 180/10:43:00 71 59.8 0426 164.9 038 147 32951 32426 1.6 -0.6 -2.6 -44.0
 180/10:44:00 71 62.8 0426 164.8 038 147 32951 32426 1.6 -0.6 -2.6 -44.0
 180/10:45:00 71 65.8 0426 164.7 038 147 32951 32426 1.6 -0.6 -2.6 -44.0
 180/10:46:00 71 68.8 0426 164.6 038 147 32951 32426 1.6 -0.6 -2.6 -44.0
 180/10:47:00 71 71.8 0426 164.5 038 147 32951 32426 1.6 -0.6 -2.6 -44.0
 180/10:48:00 71 74.8 0426 164.4 038 147 32951 32426 1.6 -0.6 -2.6 -44.0
 180/10:49:00 71 77.8 0426 164.3 038 147 32951 32426 1.6 -0.6 -2.6 -44.0
 180/10:50:00 71 80.8 0426 164.2 038 147 32951 32426 1.6 -0.6 -2.6 -44.0
 180/10:51:00 71 83.8 0426 164.1 038 147 32951 32426 1.6 -0.6 -2.6 -44.0
 180/10:52:00 71 86.8 0426 164.0 038 147 32951 32426 1.6 -0.6 -2.6 -44.0

180 10.01.83 ADDAS TAPES SKETCHED, EDT

YEAR 1984 ADDAS FLIGHT LOG --- FLIGHT NO. 11 --- NIZEX															
---	TIME	---	LAT	---	LONG	---	GRD TRUE	---	WIND	---	ALTITUDE	---	IR	---	AIR
							SPD		DIR		PRES		RADAR		PITCH
							HEAD		SPD		DIR		DIR		ROLL
180/10:53:00	70	42.0	016	08.1	0392	176.8	019	164	19990	19591	1.2	-0.5	-0.7	-29.6	
180/10:54:00	70	45.7	016	08.0	0390	177.0	018	161	19991	19623	1.1	-0.6	-4.2	-29.4	
180/10:55:00	70	49.3	016	08.1	0386	182.8	021	152	19999	19619	0.9	-10.9	-4.8	-28.1	
180/10:56:00	70	53.0	016	08.0	0385	181.6	020	166	19959	19601	1.3	-2.9	1.2	-29.4	
180/10:57:00	70	56.7	016	08.0	0382	179.5	018	169	19969	19600	1.4	-0.5	-0.6	-27.8	
180/10:58:00	70	10.5	016	08.0	0378	182.5	017	176	19980	19606	1.5	-0.1	-4.5	-27.8	
180/10:59:00	70	04.5	016	07.1	0377	182.1	016	167	19983	19615	1.4	-0.3	-7.0	-26.5	
180/11:00:00	69	58.4	016	06.7	0376	179.9	019	157	19995	19603	1.4	-0.4	0.4	-29.6	
180/11:01:00	69	51.8	016	06.6	0376	178.7	019	154	19997	19638	1.4	-0.6	2.4	-27.5	
180/11:01:34	69	48.4	016	06.6	0376	178.6	018	152	19999	19618	1.3	-0.7	2.3	-27.2	
180/11:02:00	69	45.6	016	06.4	0377	179.8	018	153	19997	19594	1.3	-0.7	2.1	-27.4	
180/11:03:00	69	42.0	016	06.2	0378	179.7	017	150	19995	19622	1.3	-0.9	1.5	-28.6	
180/11:04:00	69	38.0	016	06.2	0378	178.7	016	152	19997	19624	1.3	-0.3	2.3	-30.8	
180/11:05:00	69	34.0	016	06.2	0378	178.7	016	152	19997	19624	1.3	-0.3	2.3	-30.8	
180/11:05:16	69	25.1	016	06.5	0379	188.2	021	136	19996	19571	1.5	-0.4	2.2	-28.1	
180/11:06:00	69	20.6	016	05.5	0379	188.2	021	136	19996	19571	1.5	-0.4	2.2	-28.1	
180/11:06:38	69	16.6	016	05.4	0380	179.6	023	138	19991	19611	1.4	-1.0	2.2	-28.7	
180/11:07:00	69	14.2	016	05.2	0380	179.6	023	138	19999	19773	1.1	-1.0	1.3	-27.7	
180/11:07:16	69	12.5	016	05.2	0379	178.1	024	145	19985	19210	1.3	-1.1	1.7	-28.1	
180/11:07:54	69	08.4	016	05.0	0380	179.6	024	135	19999	19460	1.2	-0.6	2.3	-28.1	
180/11:08:00	69	08.0	016	04.9	0380	179.6	024	135	19999	19460	1.3	-0.3	4.1	-29.0	
180/11:08:17	69	07.9	016	04.9	0380	179.5	024	135	19999	19469	1.2	-1.2	3.4	-29.9	
180/11:08:34	69	07.9	016	04.7	0380	179.4	026	140	19967	19561	1.5	-1.0	3.0	-29.7	
180/11:08:50	69	06.0	016	04.7	0380	179.4	026	140	19967	19561	1.5	-1.0	3.0	-29.7	
180/11:09:00	68	56.0	016	04.0	0380	187.2	027	142	19986	19501	2.0	-0.9	2.2	-29.1	
180/11:10:00	68	51.1	016	04.5	0385	187.2	027	142	19986	19501	2.0	-0.9	2.2	-29.1	
180/11:11:00	68	51.1	016	04.5	0385	187.2	027	142	19986	19501	2.0	-0.9	2.2	-29.1	
180/11:11:11	68	46.2	016	04.2	0386	187.2	027	142	19986	19501	2.0	-0.9	2.2	-29.1	
180/11:12:00	68	46.2	016	04.2	0386	187.2	027	142	19986	19501	2.0	-0.9	2.2	-29.1	
180/11:13:00	68	41.3	016	04.2	0386	187.2	027	142	19986	19501	2.0	-0.9	2.2	-29.1	
180/11:14:00	68	36.9	016	04.2	0386	187.2	027	142	19986	19501	2.0	-0.9	2.2	-29.1	
180/11:15:00	68	33.4	016	04.2	0386	187.2	027	142	19986	19501	2.0	-0.9	2.2	-29.1	
180/11:16:00	68	29.6	016	04.2	0386	187.2	027	142	19986	19501	2.0	-0.9	2.2	-29.1	
180/11:17:00	68	25.7	016	07.7	0257	201.9	020	078	6359	5948	3.6	-0.1	9.7	-2.0	
180/11:18:00	68	22.9	016	07.7	0257	201.9	020	078	6359	5948	3.6	-0.1	10.5	-0.5	
180/11:19:00	68	19.5	016	07.7	0256	203.8	018	079	5566	5360	1.1	1.9	11.2	1.6	

SOLID CLOUDS UNDERNEATH US.

THE 11-05.17 TIME 11-05.17 LAT 6924.7 N LONG 01605.5 E FL 199

THE 11-09.15 TIME 11-09.15 LAT 6503.1 N LONG 01604.3 E FL 199

END OF RUN 11

END OF RUN 11

3.9 Eighth Data Flight—Day 182—Evenes RT

All instruments were operational. The weather was exceptionally clear, permitting excellent photographic coverage.

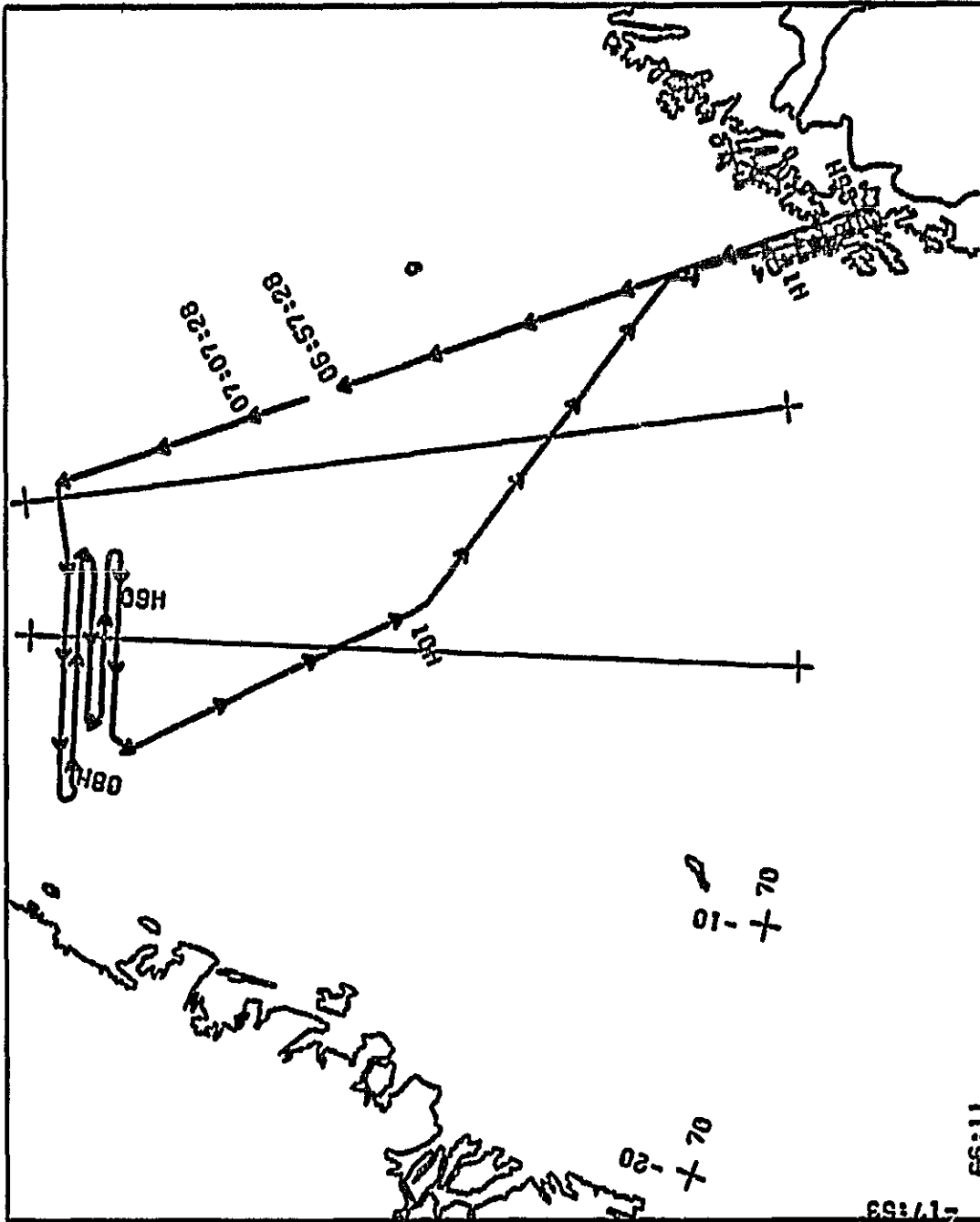
The original flight plan consisted of five 17-minute legs running east/west, starting at the north at $79^{\circ} 29.8' \text{N}$, $5^{\circ} 57.1' \text{E}$, and separated by 10 nm. This was to permit intersection with the predicted position of the Polarstern as of 2400 Z on 29 June. At the end of the fifth leg, the plan was to take a bearing of 315 degrees for a transect into heavy multiyear ice, but that had to be aborted in favor of extending legs one and two to $10^{\circ} 50' \text{W}$ in order to intersect with the actual position of the Polarstern as she was struggling through heavy ice at $79^{\circ} 24' \text{N}$, $10^{\circ} 42' \text{W}$ at 0733 GMT.

The 'head of the running dog' eddy encountered four days earlier was no longer recognizable. Indeed, the ill-defined edge of the ice pack was far to the west—at 2°W . A rather complicated eddy structure was present in the MIZ at this point. Location of the major eddy feature was radioed (by request) to Ola Johannessen onboard the Polarstern.

Multiyear ice signatures were indeed encountered, but not in compact ice. This was disappointing from the point-of-view of radiometry, but certainly not from the standpoint of ice dynamics.

This was our final data flight with the CV-990. We had hoped also to do a north-south transect of the East Greenland Sea sea ice on the way to Sondrestromfjord, but this had to be aborted since our long-standing reservations for overnighing there were suddenly cancelled just yesterday, for some cause not yet determined. This was particularly disappointing to us, since the last-minute changes required in today's flight precluded looking at the more compact multiyear ice to the south.

ORIGINAL PAGE IS
OF POOR QUALITY



FLI 012 JUNE 29. 1954 EVENES LOCAL
5:56:54 TO 11:30:52 UT SCALE = 1:16-282:08 TIME TICS EVERY 10.00 MINUTES

Figure 23. Flight tracks: Evenes RT 6/29

ORIGINAL PAGE IS
OF POOR QUALITY

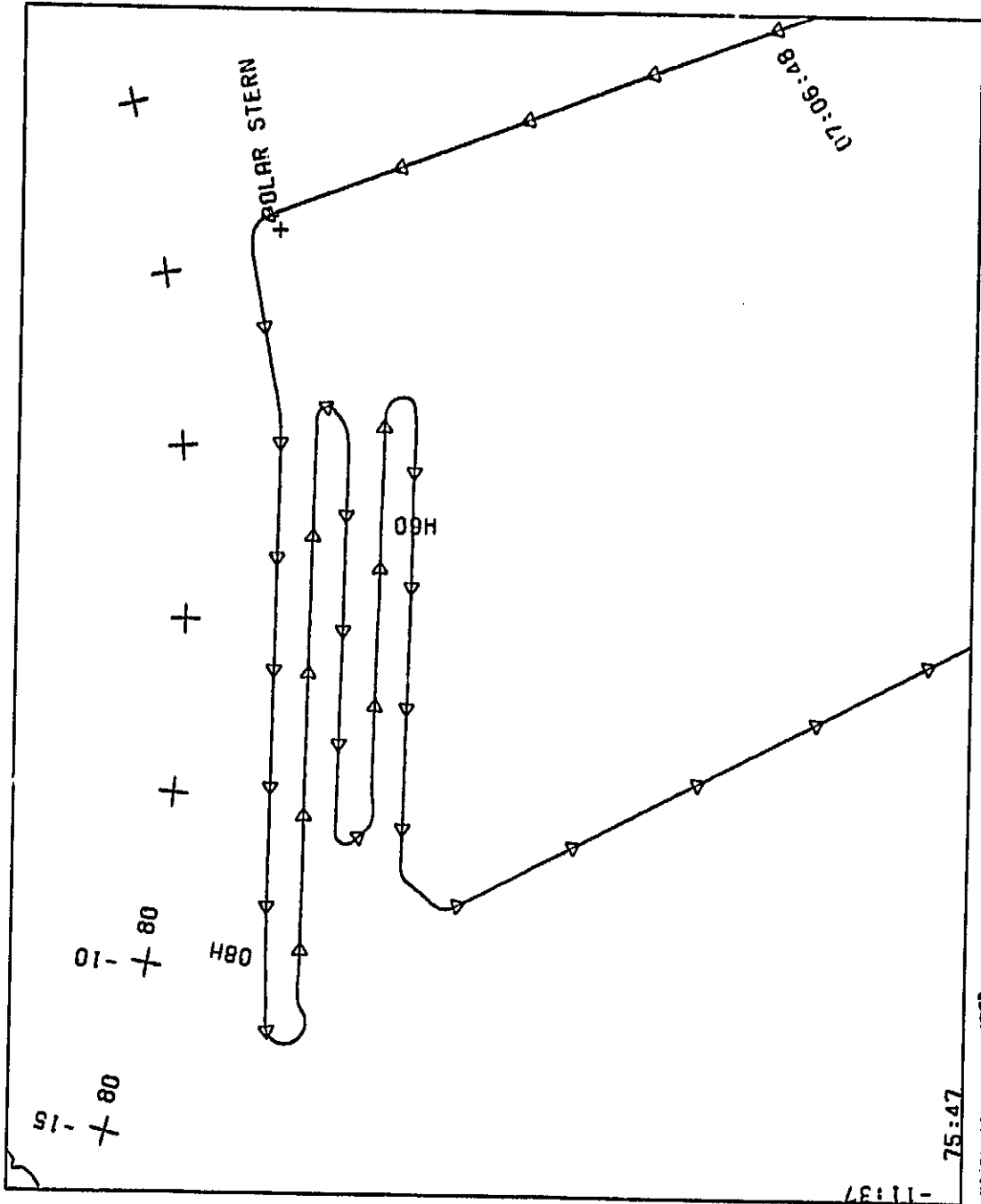


Figure 24. Mosaic pattern: 6/29

ORIGINAL PAGE IS
OF POOR QUALITY

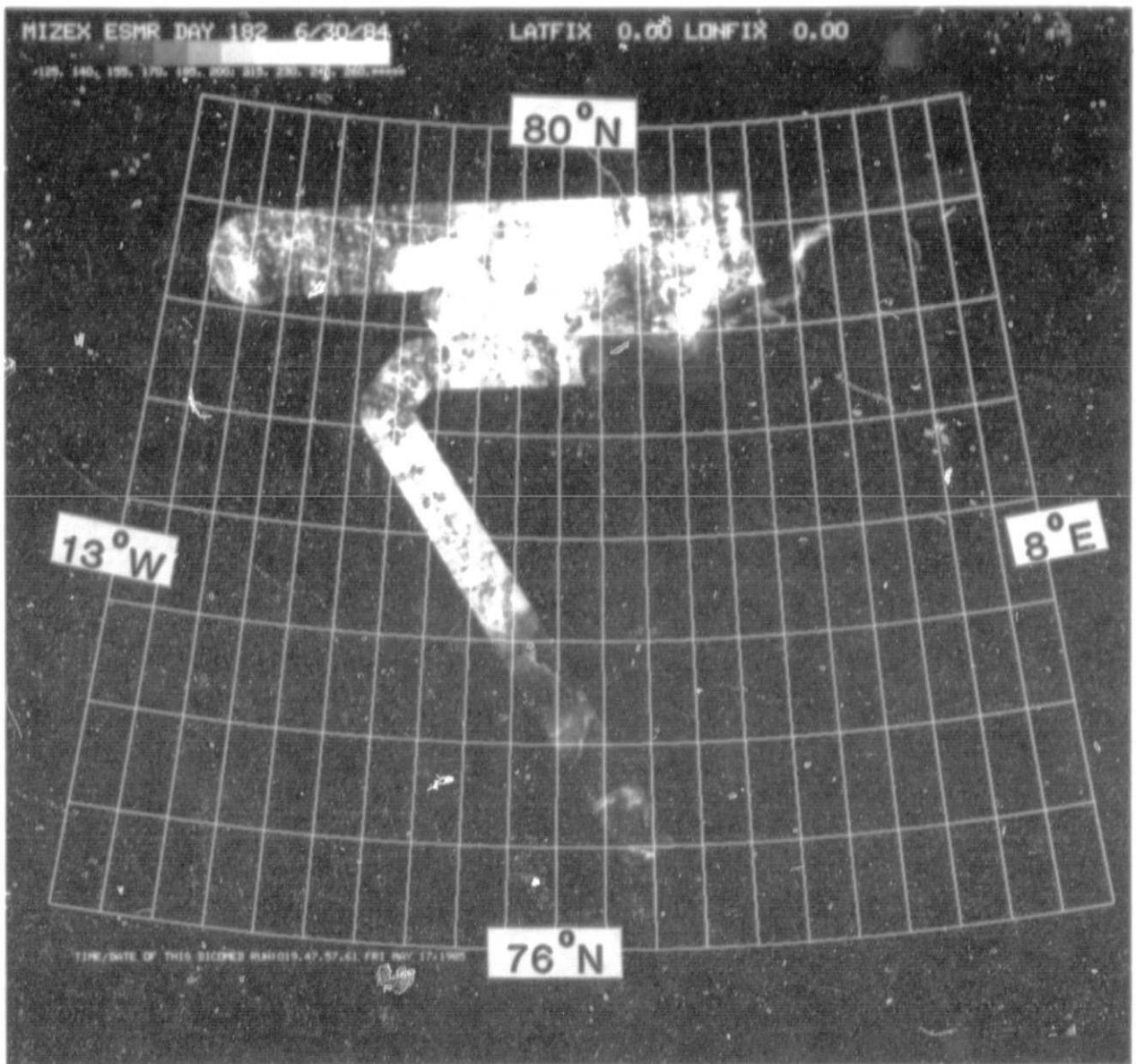


Figure 25. ESMR mosaic: 6/29

YEAR	1994	ADDRAS	FLIGHT	LOG	---	FLIGHT	NO.	12	---	WIZEX	---	TEMP
---	TIME	---	LAT	---	LONG	---	SPD	DIR	ALTITUDE	---	IR	AIR
---	---	---	---	---	---	---	---	---	---	---	---	---
182705:54:46	00	00	00	00	00	00	00	00	00	00	00	00
182705:57:00	00	00	00	00	00	00	00	00	00	00	00	00
182705:59:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:00:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:01:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:02:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:03:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:04:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:05:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:06:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:07:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:08:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:09:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:10:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:11:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:12:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:13:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:14:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:15:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:16:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:17:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:18:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:19:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:20:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:21:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:22:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:23:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:24:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:25:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:26:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:27:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:28:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:29:00	00	00	00	00	00	00	00	00	00	00	00	00
182706:30:00	00	00	00	00	00	00	00	00	00	00	00	00

TIME OFF TIME CS 53 26
 JULIAN DAY
 JULIAN DAY 182

DATE 20 1994
 FLIGHT 12
 EVENTS/VALUES

W/P 1 70-59.3 16-C3.15 L/O

W/P 2 75-16.5 16-19.1E
 W/P 3 79-28.3 11-02.5E
 W/P 4 79-29.0 5-22.5E
 W/P 5 79-29.0 5-27.1W
 W/P 6 79-19.3 -26.5E

CONNECTION: W/P 6 79-19.6 6-C3.1M
 W/P 7 79-19.0 5-26.5E
 W/P 8 79-09.9 5-21.1E

W/P 1 79-09.9 6-C3.1M
 W/P 2 79-59.9 6-48.2E
 W/P 3 79-59.9 5-15.5E
 W/P 4 79-59.9 5-10.5E

W/P 5 73-50.0 6-20.1M
 W/P 6 73-42.4 11-16.1M
 W/P 7 77-25.1 11-20.6M

W/P 8 75-C3.3 2-15.7E
 W/P 9 71-11.1 16-C3.1E IP
 W/P 10 69-17.3 16-C3.1E
 W/P 11 69-11.1 16-C3.1E

W/P 12 69-19.5 16-40.7E
 W/P 13 69-47.5 16-59.5E
 W/P 14 69-55.9 16-40.5E FS
 CONNECTION: W/P 15 69-55.9 16-40.5E FS

W/P 16 69-27.5 16-41.2E ECJ
 W/P 17 69-22.1 15-55.7E ECJ
 W/P 18 69-22.1 15-55.7E ECJ

ADDRAS IS HAVING PROBLEMS WITH DEEL SYSTEM.

CS 21 CO W/P 1.

ORIGINAL PAGE OF POOR QUALITY

Table with columns: YEAR 1984, ACAS, FLIGHT NO., ALTITUDE, HEZEX, TEMP, IR, AIR, etc. It contains flight log data with various annotations and coordinates.

YEAR 1924 ANDAS FLIGHT LOG 12 FLIGHT NO. 12 --- ALTITUDE --- MIZEK
 ---TIME--- --LAT-- --LON-- --HDG-- --TRK-- --SPO-- --DIR-- --PRES-- --BEAR-- PITCH ROLL IR AIR --TEMP--
 182/09:01:00 79 01.6 003 04.9 0497 100.0 064 216 32994 32706 2.1 -1.0 -0.7 -52.4
 182/09:02:00 79 01.4 003 04.9 0493 101.4 067 219 33047 32693 2.0 -2.0 -0.8 -51.6
 182/09:03:00 79 00.4 004 30.9 0504 101.1 064 219 32925 32768 1.8 -1.1 0.3 -51.6
 182/09:04:00 78 59.6 005 15.1 0505 101.5 061 223 32944 32826 1.3 -0.1 0.1 -52.6
 182/09:04:02 78 59.5 005 16.8 0506 101.9 062 222 32932 31791 1.5 0.1 0.7 -53.0
 182/09:05:00 78 58.5 005 51.2 0439 150.4 070 225 33059 32490 2.0 20.1 -7.5 -50.9
 182/09:06:00 78 50.4 005 04.0 0400 245.8 084 230 32702 32707 1.9 31.1 -8.2 -52.2
 182/09:07:00 78 50.4 005 07.6 0305 260.4 080 220 32702 32699 1.7 -0.4 0.9 -51.4
 182/09:08:51 78 51.7 004 01.6 0423 268.6 087 222 33016 32692 1.8 -0.4 0.9 -51.9
 182/09:09:01 78 51.9 003 55.4 0424 268.3 070 222 33033 32663 1.6 -0.4 0.2 -51.8
 182/09:09:37 78 52.4 003 33.3 0425 268.1 072 221 32968 32766 1.6 0.1 -0.3 -52.2
 182/09:10:01 78 52.4 003 19.7 0426 267.9 072 219 32933 32756 1.6 1.4 -0.4 -51.7
 182/09:11:01 78 52.4 002 43.5 0420 265.0 066 221 32933 32744 1.9 0.9 0.3 -51.9
 182/09:12:01 78 52.9 032 06.7 0418 265.7 062 220 32938 32732 1.8 -0.6 -0.2 -49.6
 182/09:13:01 78 53.0 001 30.9 0437 265.6 063 218 32952 32750 1.9 -0.4 2.4 -49.4
 182/09:13:35 78 53.1 001 04.9 0437 265.5 061 217 32927 32707 2.0 -0.4 1.9 -49.9
 182/09:14:01 78 53.2 000 15.4 0430 262.4 058 220 32976 32682 2.0 -0.4 1.0 -50.4
 182/09:15:01 78 53.3 000 17.1 0421 265.3 054 223 32966 32636 2.0 -0.7 -5.0 -50.3
 182/09:16:01 78 53.4 -003 17.1 0421 265.3 054 223 32966 32636 2.0 -0.7 -5.0 -50.3
 182/09:16:13 78 53.4 -003 24.6 0422 265.4 053 226 32960 32627 1.7 -0.5 -1.0 -49.9
 182/09:17:01 78 53.3 -002 26.3 0423 265.3 050 226 32967 32631 1.9 -0.5 -0.9 -52.1
 182/09:17:33 78 53.3 -001 12.9 0423 265.5 047 227 32946 32614 1.9 -0.4 -4.7 -50.0
 182/09:18:01 78 53.2 -001 30.4 0425 265.8 046 229 32952 32602 1.8 -0.7 -6.7 -50.6
 182/09:18:43 78 53.2 -001 55.3 0425 264.5 047 225 32947 32610 2.2 -0.1 -6.7 -50.6
 182/09:18:45 78 53.1 -001 56.5 0425 264.5 047 226 32957 32610 2.2 -0.3 -7.4 -50.4
 182/09:18:51 78 53.2 -002 01.2 0425 264.5 046 224 32964 32623 1.9 -0.2 -7.9 -49.7
 182/09:19:01 78 53.2 -002 08.6 0425 264.4 047 224 32961 32610 1.6 -0.4 -8.2 -49.6
 182/09:20:01 78 53.0 -002 42.8 0425 260.1 041 225 32958 32615 2.1 -0.2 -2.5 -40.6
 182/09:21:01 78 52.9 -003 20.0 0424 263.5 045 226 32959 32619 2.0 -0.4 -1.4 -49.2
 182/09:22:01 78 52.9 -003 55.9 0423 263.3 043 226 32964 32599 2.0 -0.4 -1.4 -49.2
 182/09:22:27 78 52.1 -004 12.1 0422 263.4 040 229 32959 32586 2.2 -1.0 -2.0 -46.3
 182/09:23:01 78 51.8 -004 31.4 0421 263.3 040 235 32964 32619 1.9 -0.2 -1.9 -46.1
 182/09:23:05 78 51.8 -004 34.9 0421 263.2 042 234 32966 32614 2.1 -0.4 -1.8 -46.6
 182/09:24:51 78 51.4 -005 09.8 0420 263.8 039 243 32965 32589 2.0 -0.2 -1.4 -46.0
 182/09:25:01 78 50.7 -005 43.9 0418 263.3 041 244 32964 32575 1.9 -0.4 -0.5 -47.0
 182/09:25:43 78 50.4 -006 09.0 0418 262.5 039 243 32955 32581 2.1 -0.1 -0.8 -48.0
 182/09:26:01 78 50.2 -006 19.6 0418 262.5 040 244 32949 32587 2.5 -0.9 -0.9 -48.7
 182/09:26:03 78 50.2 -006 21.8 0410 261.8 039 241 32948 32575 3.0 -0.4 -1.1 -48.0
 182/09:27:01 78 46.3 -005 04.1 0410 213.5 036 241 32936 32545 2.3 -0.5 -1.3 -48.5
 182/09:28:01 78 31.2 -007 31.1 0445 159.3 031 239 32959 32626 2.5 -2.4 -1.7 -40.2
 182/09:29:01 78 27.2 -006 49.7 0453 159.6 039 246 32960 32619 2.2 -0.4 -1.2 -46.3
 182/09:31:01 78 21.0 -006 20.1 0462 150.3 040 246 32961 32652 2.0 -0.1 -1.4 -49.3
 182/09:32:01 78 14.6 -006 05.8 0467 157.5 040 255 32973 32656 2.0 -0.0 -1.2 -49.0
 182/09:33:01 78 09.2 -005 45.4 0472 150.9 040 251 32932 32692 1.9 -0.6 -1.0 -49.4
 182/09:33:55 78 02.2 -005 28.0 0475 150.9 039 254 32969 32692 1.8 -0.6 -0.8 -50.9
 182/09:34:01 78 01.8 -005 24.0 0475 150.9 039 254 32956 32697 1.9 -0.6 -0.9 -50.2
 182/09:35:01 77 55.2 -005 03.4 0481 151.8 044 261 32956 32697 1.9 -0.6 -1.2 -51.1
 182/09:36:01 77 48.3 -004 41.7 0486 151.8 045 265 32965 32720 1.8 -0.6 -0.7 -51.4
 182/09:37:01 77 41.6 -004 41.3 0491 151.9 040 270 32975 32747 1.9 -0.7 -0.8 -50.9
 182/09:37:53 77 35.8 -004 03.5 0491 151.9 040 267 32967 32765 1.7 -1.0 -0.5 -53.7
 182/09:39:01 77 27.7 -003 40.7 0490 151.8 035 260 32962 32701 1.7 -0.7 -1.2 -51.1
 182/09:39:05 77 27.3 -003 39.4 0490 151.8 035 269 32969 32704 1.6 -0.7 -1.0 -49.9
 182/09:40:01 77 20.9 -003 21.0 0487 151.4 027 249 32972 32805 1.6 -1.1 -0.5 -50.0
 182/09:41:01 77 14.1 -003 02.0 0484 151.7 024 259 32949 32802 1.7 -0.4 0.5 -51.7
 182/09:41:11 77 13.0 -002 58.6 0482 151.7 024 285 32950 32840 1.3 -0.9 0.4 -51.1
 182/09:42:01 77 07.1 -002 43.6 0477 151.9 026 228 32957 32840 1.4 -0.6 -0.4 -53.4

END OF RUN 4 TIME 09:04:01 LAT 7059.5 N LON C0516.0 E FL 329

START OF RUN 5 AT 09 07 20 LAT 70 50.4N LON 4 55.4E.

10 PERCENT CLOUD COVER AT THE START OF THE RUN.

BACK IN FAIRLY CLEAR CONDITIONS.

CROSSING A STREAMER OF 50 METER FLOES.

EASTERN BOUNDARY OF EDDIE.

CENTER OF THE EDDIE - 3 MILES LEFT

CENTER OF EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

EDDIE - 3 MILES LEFT.

END OF RUN 5 TIME 09:26:02 LAT 7050.2 N LON C0521.0 M FL 329

MULTIYEAR FLOES, SMALL SIZES.

10 TO 100 PERCENT ICE.

END OF RUN 5

SMALL FIRST YEAR FLOES AND SMALLER SECOND YEAR FLOES.

FRONTAL PATTEEN - 10 MILES AHEAD OF AIRCRAFT, 30 MILES LEFT OF TRACK

ICE HAVE STRUCTURE - WATER.

ALMOST AT THE HORIZON ON STARBOARD SIDE - THEY SEE AN EDDIE.

ORIGINAL FACE IS
OF POOR QUALITY

YEAR 1964 APR 05 FLIGHT LOG --- FLIGHT NO. 12 --- ALTIX ---

--- TIME --- LAT --- LONG --- SPD TRUE --- HDG --- ALTITUDE ---

--- DIR --- PITCH --- ROLL --- TEMP ---

IR AIR

09 42 50 OVER THE EDGE.
EVIDENCE OF HAVES ENTERED'S ICE LOCATION.
PLATE DIRECTLY BELOW US.

LEW LEVEL STRATUS.
ENTERING 100 PERCENT STRATUS CLOUD COVER.
CAMERAS OFF.

ACMAS TAPES SWITCHED, EDT

182/09:43:01 77 00.5 -002 25.5 0470 152.8 030 225 32940 32944 1.6 0.0 -0.6 -52.8
182/09:43:15 76 59.5 -002 25.5 0470 153.0 028 225 32956 32956 1.5 0.0 -0.2 -52.4
182/09:44:01 76 53.9 -002 03.2 0463 153.5 030 230 32940 32903 1.6 -0.8 2.6 -51.5
182/09:45:01 76 47.1 -001 50.9 0456 154.2 037 222 32952 32930 1.6 -0.7 1.3 -51.0
182/09:45:11 76 46.1 -001 48.3 0455 154.3 039 223 32953 32929 1.7 -0.7 -3.4 -50.9
182/09:46:01 76 40.7 -001 34.5 0453 154.6 041 222 32956 32993 1.9 -0.4 -0.3 -51.6
182/09:46:30 76 39.6 -001 34.6 0451 154.9 039 222 32950 32925 1.7 -0.8 9.1 -52.9
182/09:46:50 76 38.6 -001 18.1 0451 154.9 039 221 32949 32972 1.8 -0.1 -0.7 -51.0
182/09:47:01 76 34.2 -001 10.4 0450 155.0 039 211 32953 32972 1.8 0.0 -1.1 -51.3
182/09:48:01 76 27.5 -001 02.2 0449 155.0 038 214 32963 32942 1.8 -0.4 -0.8 -51.2
182/09:49:01 76 21.1 -000 00.0 0448 155.0 037 214 32950 33014 1.6 0.0 -0.5 -52.2
182/09:50:01 76 14.8 -000 31.9 0447 154.6 033 210 32956 33018 1.6 -1.0 -0.8 -49.8
182/09:51:01 76 08.1 -000 16.9 0445 154.4 030 208 32956 33018 1.6 -0.7 -0.8 -49.8
182/09:52:01 76 01.6 -000 02.6 0443 154.4 029 199 32973 33024 1.8 -0.8 0.2 -51.8
182/09:53:01 75 55.3 -000 18.1 0443 154.2 026 200 32959 33053 1.8 -0.4 -3.2 -51.1
182/09:54:01 75 49.6 -000 26.6 0443 154.2 025 198 32964 33055 1.8 -0.6 -4.0 -50.7
182/09:55:01 75 42.5 -000 40.3 0440 154.5 021 193 33091 33146 1.6 -1.6 -4.5 -51.1
182/09:56:01 75 32.7 -000 03.4 0441 154.7 020 189 33023 33106 1.0 -1.6 -1.7 -51.5
182/09:57:01 75 28.1 -000 03.9 0441 154.7 020 188 33023 33106 1.0 -1.6 -1.7 -51.5
182/09:58:01 75 22.6 -001 20.5 0444 153.1 018 178 33008 33108 1.6 -0.5 0.1 -51.0
182/09:59:01 75 16.2 -001 33.9 0445 153.6 019 167 32989 33045 1.6 -0.5 -3.4 -51.5
182/10:00:01 75 09.4 -001 47.2 0446 153.6 023 160 32979 33040 1.5 -0.5 -4.7 -51.7
182/10:01:01 75 02.8 -002 00.0 0446 153.6 021 152 32981 33033 1.5 -0.5 -4.0 -51.2
182/10:02:01 74 56.6 -002 14.2 0444 153.3 021 152 32958 33017 1.5 9.1 -2.1 -50.6
182/10:03:01 74 50.9 -002 32.5 0446 126.1 021 137 32946 33023 1.7 0.2 -2.9 -50.7
182/10:04:01 74 46.5 -002 54.7 0446 127.2 021 135 32975 33021 1.6 -0.4 -0.1 -49.7
182/10:05:01 74 42.0 -002 72.0 0446 127.3 022 135 32975 33021 1.7 -0.4 1.4 -49.7
182/10:06:01 74 37.9 -002 88.4 0444 126.8 025 131 32969 33028 1.6 -1.0 -23.4 -51.4
182/10:07:01 74 34.9 004 03.8 0442 127.9 026 127 32961 33028 1.6 -0.7 -19.9 -50.2
182/10:08:01 74 28.5 004 28.4 0440 127.9 027 123 32966 33020 1.8 -0.4 -12.9 -49.7
182/10:09:01 74 23.9 004 44.1 0439 128.0 026 119 32973 33031 1.6 -0.4 -0.1 -49.7
182/10:10:01 74 19.2 005 25.0 0436 128.3 028 116 32980 33000 1.9 -0.4 1.4 -49.7
182/10:11:01 74 14.8 005 25.5 0436 128.3 029 116 32976 33032 1.8 -0.4 1.4 -49.7
182/10:12:01 74 10.1 005 44.5 0436 128.5 027 112 32970 33005 1.8 -0.4 2.3 -51.3
182/10:13:01 74 05.6 006 03.6 0435 128.8 026 109 32972 32997 1.7 0.5 2.3 -51.3
182/10:14:01 74 04.2 006 12.2 0436 128.8 026 109 32950 32959 1.5 -0.5 -0.4 -50.3
182/10:15:01 74 00.9 006 26.5 0436 128.5 029 105 32976 33002 1.7 -0.7 -2.3 -50.0
182/10:16:01 74 00.4 006 47.2 0435 128.8 029 103 32991 33010 1.7 -0.6 -2.3 -50.0
182/10:17:01 74 01.6 007 38.5 0440 129.6 030 102 32975 32965 1.6 -0.3 -1.2 -51.3
182/10:18:01 73 46.6 007 28.5 0440 129.6 030 107 32955 32969 1.5 -0.7 2.1 -49.4
182/10:19:01 73 41.8 007 46.8 0441 129.9 030 104 32944 32967 1.6 -0.5 2.1 -51.2
182/10:20:01 73 37.0 008 24.7 0440 130.0 034 102 32950 32926 1.5 -0.5 2.1 -49.4
182/10:21:01 73 32.1 028 44.4 0440 130.2 031 100 32957 32944 1.6 -0.6 2.5 -50.0
182/10:22:01 73 27.1 028 44.9 0440 130.6 030 100 32942 32929 1.6 -0.3 2.3 -50.2
182/10:23:01 73 17.3 009 21.7 0441 130.7 030 099 32943 32919 1.5 -0.3 1.9 -49.5
182/10:24:01 73 12.2 009 40.4 0441 131.0 033 097 32946 32971 1.5 -0.5 2.2 -50.0
182/10:25:01 73 07.1 009 58.7 0441 131.1 034 100 32948 32917 1.4 -0.5 1.6 -51.7
182/10:26:01 73 02.1 010 38.0 0440 131.1 037 088 32861 32880 1.5 -0.8 0.4 -50.6
182/10:27:01 72 57.1 010 34.8 0440 131.5 036 099 32950 32940 1.5 -0.4 1.5 -50.1
182/10:28:01 72 52.0 010 52.7 0440 131.7 037 097 32949 32890 1.6 0.6 1.3 -50.2
182/10:29:01 72 46.9 011 20.0 0440 131.9 036 093 32952 32877 1.6 -0.6 1.5 -50.2
182/10:30:01 72 41.7 011 28.2 0439 132.1 039 099 32957 32871 1.5 -0.7 -0.8 -50.7
182/10:31:01 72 36.6 012 45.0 0438 132.2 041 098 32869 32872 1.5 -0.6 1.6 -51.7
182/10:32:01 72 31.4 012 02.0 0437 132.4 038 096 32954 32872 1.5 -0.6 2.0 -51.4
182/10:33:01 72 26.3 012 29.1 0437 132.6 039 095 32948 32865 1.5 -0.7 0.9 -48.6
182/10:34:01 72 21.0 012 55.6 0437 132.5 041 093 32939 32846 1.5 -0.7 1.2 -49.9
182/10:35:01 72 15.9 012 52.9 0437 132.7 042 093 32936 32859 1.4 -0.4 0.6 -50.2
182/10:36:01 72 10.8 012 23.1 0438 133.0 043 094 32950 32812 1.5 -0.7 0.5 -48.9
182/10:37:00 72 05.4 013 24.4 0438 133.4 043 096 32952 32825 1.5 -0.4 2.6 -49.7

YEAR 1984 ADDAS FLIGHT LOG --- FLIGHT NO. 12 --- INDEX

Table with columns: TIME, LAT, LONG, SPD, DIR, PRES, RADAR, PITCH, ROLL, IR, TEMP, AIR, and various run identifiers (e.g., 182/10:38:00, 182/10:39:00, etc.). Includes notes like 'START OF THE RUN #6 11 03 45' and 'LAT 69 25.94 N LONG 016 01.0 E'.

ORIGINAL PAGE IS
OF POOR QUALITY

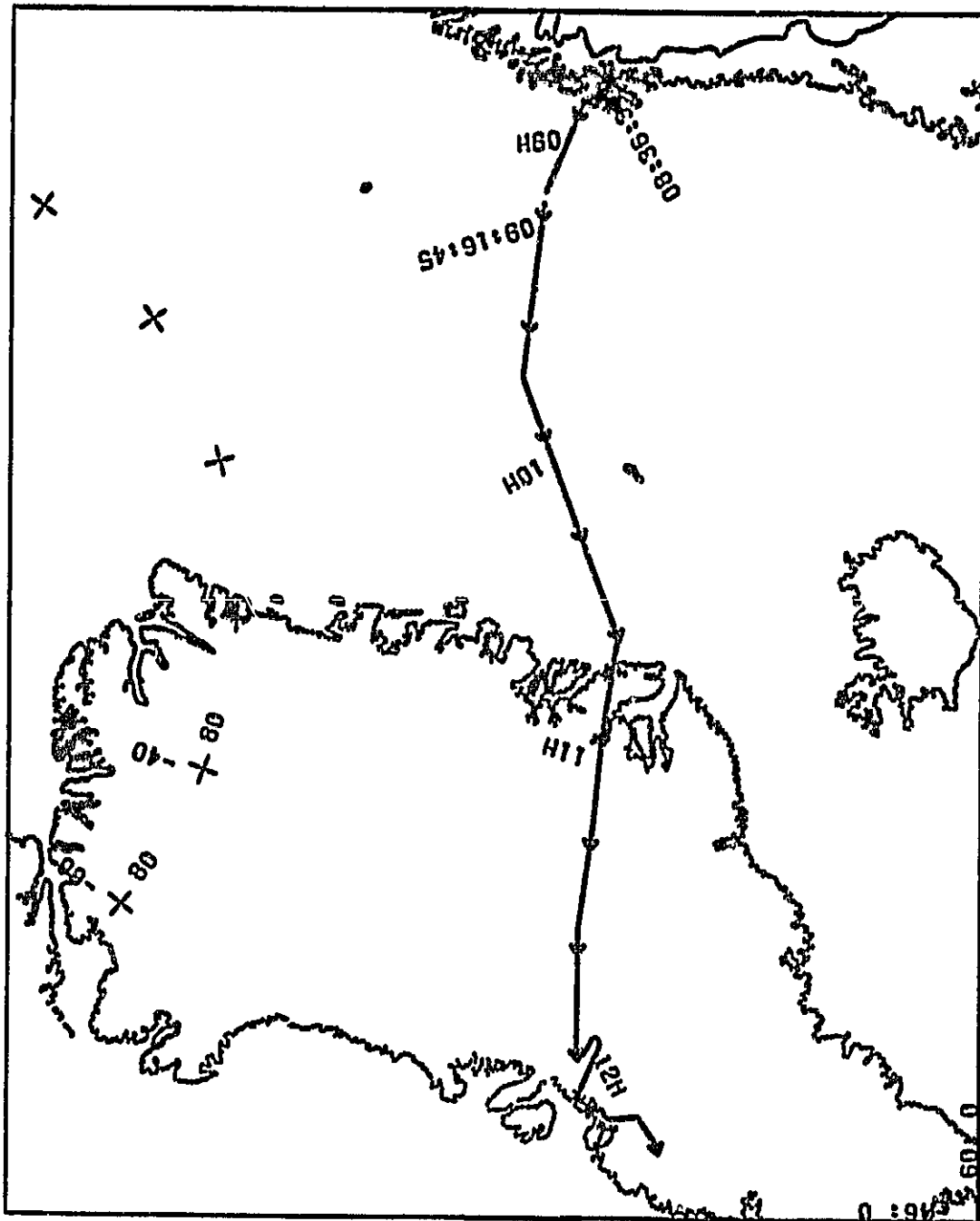
YEAR 1984	ADDAS FLIGHT LOG	---	FLIGHT NO. 12	----	MISEX	----	---	---	---	---	---	---	---	
---	---	---	---	---	---	---	---	---	---	---	---	---	---	
---	---	---	---	---	---	---	---	---	---	---	---	---	---	
---	---	---	---	---	---	---	---	---	---	---	---	---	---	
---	---	---	---	---	---	---	---	---	---	---	---	---	---	
---	---	---	---	---	---	---	---	---	---	---	---	---	---	
---	---	---	---	---	---	---	---	---	---	---	---	---	---	
---	---	---	---	---	---	---	---	---	---	---	---	---	---	
---	---	---	---	---	---	---	---	---	---	---	---	---	---	
---	---	---	---	---	---	---	---	---	---	---	---	---	---	
182/11:26:00	68	45.9	016	01.3	0389	180.7	002	250	13266	13069	-2.9	-0.8	-1.8	-12.4
182/11:27:00	68	45.6	016	01.2	0375	180.9	003	258	10809	10154	-3.1	-0.7	-1.4	-7.8
182/11:28:00	68	45.8	016	00.9	0344	181.8	004	300	9181	6703	-2.2	2.9	-1.3	-4.5
182/11:29:00	68	45.1	016	00.5	0320	184.1	010	292	7016	5783	-2.4	-1.0	0.0	-2.9
182/11:30:00	68	45.6	016	02.9	0280	123.5	005	359	5659	5463	1.3	-23.3	0.4	-0.4
182/11:31:00	68	45.6	016	13.4	0227	090.1	007	078	4320	4159	1.0	-11.4	-0.2	0.0
182/11:32:00	68	45.4	016	28.0	0185	062.7	003	046	3315	2854	-1.0	-4.8	-2.5	0.0
182/11:33:00	68	45.2	016	35.4	0162	077.0	006	276	2446	2241	-1.1	-3.6	-2.6	5.9
182/11:34:00	68	45.2	016	42.1	0150	051.0	005	326	1515	1421	0.9	-13.7	12.8	8.1

3.10 Transit Flight—Day 183—Evenes/Sondrestromfjord/Malstrom AFB

This flight plan afforded only a brief encounter with the Greenland MIZ—10-15 minutes worth. Some ice was observed in Hudson Bay.

During our refueling stop at Sondrestromfjord, we were unable to determine the reason for the sudden cancellation of our overnight reservations there. The base seemed largely abandoned, with no large contingents of crews scheduled on the arrivals board. We were left with the uncomfortable impression that the base decided not to accomodate us because of the impending July 4 holiday.

ORIGINAL PAGE IS
OF POOR QUALITY



RIZEN 1984 FT-21A JULY 1, 1984 EVENS TO BOMBESTON
8:58:25 TO 12:01:42 UT SCALE = 1:1-20E:07 TIME TICS EVERY 20.00 MINUTES

Figure 26. Flight tracks: Evens/Sondre 7/1

ORIGINAL PHOTOGRAPH OF POOR QUALITY

YEAR	1954	AIRAS	FLIGHT LOG	FLIGHT NO.	13	INDEX	LAT			LONG			ELEVATION			TEMP			WIND			WATER			OTHER																																																																																																																																																																																																																																																																																																																																											
							TIME	LONG	ELEVATION	TEMP	WIND	WATER	OTHER	TIME	LONG	ELEVATION	TEMP	WIND	WATER	OTHER	TIME	LONG	ELEVATION	TEMP	WIND	WATER	OTHER																																																																																																																																																																																																																																																																																																																																									
1954/11/14	01	70	30.5-043	30.9	024	228	230	239	250	259	269	277	283	291	298	304	309	314	318	322	326	329	332	335	338	340	342	344	346	348	350	352	354	356	358	360	362	364	366	368	370	372	374	376	378	380	382	384	386	388	390	392	394	396	398	400	402	404	406	408	410	412	414	416	418	420	422	424	426	428	430	432	434	436	438	440	442	444	446	448	450	452	454	456	458	460	462	464	466	468	470	472	474	476	478	480	482	484	486	488	490	492	494	496	498	500	502	504	506	508	510	512	514	516	518	520	522	524	526	528	530	532	534	536	538	540	542	544	546	548	550	552	554	556	558	560	562	564	566	568	570	572	574	576	578	580	582	584	586	588	590	592	594	596	598	600	602	604	606	608	610	612	614	616	618	620	622	624	626	628	630	632	634	636	638	640	642	644	646	648	650	652	654	656	658	660	662	664	666	668	670	672	674	676	678	680	682	684	686	688	690	692	694	696	698	700	702	704	706	708	710	712	714	716	718	720	722	724	726	728	730	732	734	736	738	740	742	744	746	748	750	752	754	756	758	760	762	764	766	768	770	772	774	776	778	780	782	784	786	788	790	792	794	796	798	800	802	804	806	808	810	812	814	816	818	820	822	824	826	828	830	832	834	836	838	840	842	844	846	848	850	852	854	856	858	860	862	864	866	868	870	872	874	876	878	880	882	884	886	888	890	892	894	896	898	900	902	904	906	908	910	912	914	916	918	920	922	924	926	928	930	932	934	936	938	940	942	944	946	948	950	952	954	956	958	960	962	964	966	968	970	972	974	976	978	980	982	984	986	988	990	992	994	996	998	1000

HAVE BEEN IN RE-ENTERING SO PER CENT CLOUD COVER.

4' LAT 63 SEC LONG 15W. 5' LAT 67 SEC LONG 45W. CORRECTION: 47 LAT 53 SEC LONG 50 ESM.

OTHER CLEAR CONDITIONS REM - AIR. SUN 3 STARTED FROM SUN 2 ESM.

LAT 68.5.5 N LONG 150.1.1 W FL 579

TIME 11.58.52

END OF RUN 3

LAT 69.19.5 N LONG 147.9.5 W FL 579

TIME 12.04.50

START OF RUN 4

FEW FOGS AS WE GET NEAR THE ICE EDGE.

LAT 69.12.5 N LONG 147.7.7 W FL 579

TIME 12.13.04

END OF RUN 4

FROGS BEHOLD THERE IS OPEN WATER.

CLOUDS CLOSES OPENWATER DURING HOUSWATER. OPEN WATER.

OTHER BARE LAND MOSTLY, SOME FROSTY LAKES. RUCE GLACIER WITH FEW FOGS ON IT. TONGUE OF GLACIER BEHOLD US.

YEAR	1954	ADIDAS	FLIGHT	LOG	---	FLIGHT	NO.	13	---	MIZEX	---	TEMP	AIR
---	TIME	---	LAT	---	LONG	---	GND	TIME	---	ALTITUDE	---	IR	---
---	---	---	---	---	---	---	SPD	DIR	---	PRES	RAVAR	PITCH	ROLL
183/12:23:01	68	14.3-050	39.7	0422	139.7	027	102	18964	19473	0.9	-1.4	13.6	-23.0
183/12:23:11	68	13.4-050	36.6	0421	139.4	029	099	19564	19642	1.1	-0.8	12.4	-26.2
183/12:23:27	68	11.7-050	33.2	0415	139.5	020	103	19571	19750	1.2	-0.1	14.5	-25.3
183/12:23:35	68	10.9-050	30.2	0403	139.9	020	103	19559	19584	1.2	-0.3	13.9	-25.4
183/12:24:01	68	08.0-050	27.1	0407	139.9	026	099	19571	19472	1.3	-0.3	12.0	-24.0
183/12:24:55	68	04.0-050	17.3	0376	141.0	026	113	19569	19107	-0.2	-0.7	12.4	-24.9
183/12:25:01	68	03.5-050	16.3	0383	141.0	026	116	19540	19783	-0.4	-1.1	12.1	-25.7
183/12:25:17	68	02.1-050	13.5	0362	140.9	024	114	19173	19278	-1.2	-0.1	13.2	-25.5
183/12:26:01	67	53.6-050	06.1	0377	141.4	024	114	17425	15062	-1.9	-0.4	0.6	-19.8
183/12:27:01	67	53.4-049	56.1	0370	140.7	026	099	15043	15419	0.5	-0.5	0.7	-15.2
183/12:27:35	67	50.5-049	50.5	0370	139.4	027	101	14971	12335	1.5	9.5	0.4	-19.5
183/12:28:01	67	48.2-049	47.6	0375	141.3	023	113	14539	12203	1.3	19.0	-0.6	-19.4
183/12:28:16	67	46.8-049	44.9	0360	141.6	022	105	14533	12441	1.4	1.6	0.9	-13.4
183/12:29:09	67	38.6-049	31.9	0360	141.6	022	105	14533	12441	1.4	1.6	-1.0	-11.8
183/12:29:39	67	36.7-049	26.6	0377	140.0	023	123	14971	12225	1.4	-0.1	-1.7	-13.1
183/12:30:01	67	36.7-049	26.6	0371	140.0	024	123	14965	12372	1.7	-0.5	-1.0	-13.6
183/12:31:01	67	31.4-050	05.0	0357	140.1	018	110	13359	15031	-4.0	-0.9	-1.3	-11.6
183/12:32:01	67	26.0-050	12.0	0364	140.8	012	121	10376	0572	-0.7	-0.1	-0.4	-6.0
183/12:33:01	67	20.7-050	19.1	0302	140.4	037	106	9789	0545	2.1	-0.8	-0.5	-6.1
183/12:34:01	67	16.6-050	24.4	0281	140.4	032	109	6553	6505	0.0	0.0	-0.2	-7.3
183/12:35:01	67	12.4-050	29.6	0273	140.4	033	101	6040	5661	-0.2	-0.7	0.9	-1.9
183/12:36:01	67	08.2-050	41.6	0285	140.4	035	342	4350	2864	0.0	-0.2	10.9	-3.0
183/12:37:01	67	03.2-050	49.0	0282	140.4	035	342	4350	2864	0.0	-0.2	10.9	-3.0
183/12:38:01	67	02.7-050	49.0	0282	140.4	035	342	4350	2864	0.0	-0.2	10.9	-3.0
183/12:39:01	67	03.1-050	53.6	0179	159.0	037	072	2064	1620	-0.4	-27.5	11.8	5.2
183/12:40:01	66	59.9-050	47.5	0169	061.4	005	252	669	697	0.7	-4.9	12.0	8.0

END START OF RUN 5
CAN SEE TOWERS OF CLARKSON FROM OUR TERRACE SIDE.

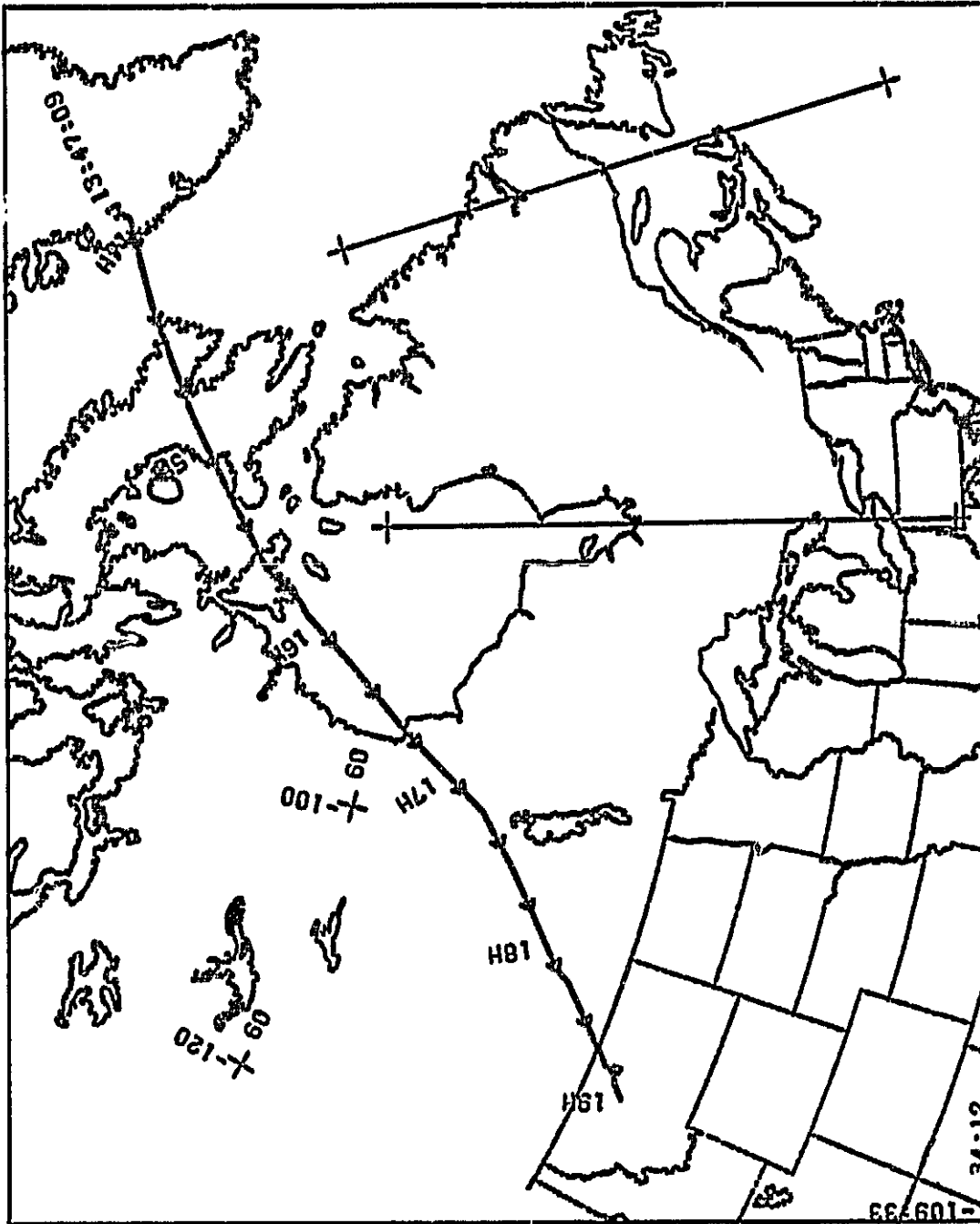
12.23.10 LAT 6013.4 N LONG 6036.6 W FL 159
END START OF CLARKSON FROM OUR TERRACE SIDE.

STARTED RECORDING AGAIN.

LOOKS LIKE TOWERS OF CLARKSON IS TO THE FRONT OF THE AIRCRAFT.

END OF RUN 5 TIME 12.27.56 LAT 6729.5 N LONG 6130.2 W FL 149
CAMERAS OFF
OVER CLARKSON AGAIN.

ORIGINAL PAGE IS
OF POOR QUALITY



FLY 1999 JULY 1-1874 SCORRETAGH TO HELLSKOR
19:48:59 TO 19:56:07 DT SCALE = 1:1.08E+07 TIME TICS EVERY 20.00 MINUTES

Figure 27. Flight tracks: Sondre/Malstr 7/1

YEAR 1984 ADDAS FLIGHT LOG --- FLIGHT NO. 13 --- MIZEX
 ---TIME--- --LAT--- --LONG--- GRD TRKE ---HDG---ALTIITUDE---
 SPD DIR PRES RADAR PITCH ROLL IR AIR

183/17:00:52 57 09.6-096 16.5 0408 211.4 068 195 36900 36619 2.4 -0.6 20.2 -46.7
 183/17:01:00 57 07.3-096 15.4 0408 211.4 070 195 36900 36677 2.5 -0.3 21.9 -47.2
 183/17:02:00 57 02.1-096 22.5 0410 211.5 066 195 36906 36595 2.4 -0.5 16.2 -47.3
 183/17:03:00 56 59.1-096 39.3 0410 211.1 088 194 36914 36404 2.4 -0.5 21.4 -46.0
 183/17:04:00 56 51.0-096 56.2 0411 211.0 086 194 36910 36454 2.2 0.0 21.6 -45.5
 183/17:05:00 56 45.1-096 43.4 0412 211.6 062 195 36901 36380 2.5 -0.3 20.4 -46.7
 183/17:06:00 56 39.3-096 50.4 0414 211.6 061 194 36900 36390 2.5 -0.3 20.4 -46.7
 183/17:07:00 56 33.6-096 57.1 0416 210.7 060 191 36905 36486 2.2 0.0 20.9 -42.9
 183/17:08:00 56 28.0-097 06.1 0418 210.8 056 192 36913 36500 2.5 -0.9 20.9 -42.9
 183/17:09:00 56 21.9-097 11.0 0421 211.8 051 193 36911 36448 2.4 -0.5 21.2 -45.6
 183/17:10:00 56 16.1-097 17.8 0425 211.9 053 195 36912 36511 2.4 -0.8 20.2 -43.8
 183/17:11:00 56 10.3-097 25.0 0428 211.7 049 201 36906 36416 2.3 -0.3 16.9 -43.5
 183/17:12:00 56 04.0-097 31.9 0430 211.6 057 201 36908 36479 2.2 -0.7 22.2 -42.6
 183/17:13:00 55 58.5-097 38.7 0429 211.5 057 201 36910 36556 2.2 -0.6 21.6 -43.6
 183/17:14:00 55 52.8-097 45.6 0427 211.6 052 204 36903 36550 2.4 -0.5 19.9 -43.6
 183/17:15:00 55 46.1-097 52.4 0428 212.1 056 208 36910 36604 2.4 -0.6 21.4 -43.1
 183/17:16:00 55 40.2-097 59.2 0429 212.1 053 209 36909 36604 2.5 -0.6 21.1 -43.1
 183/17:17:00 55 34.5-098 07.4 0430 218.9 049 210 36902 36376 2.7 0.0 20.6 -44.7
 183/17:18:00 55 28.8-098 15.3 0432 227.5 050 211 36906 36385 2.2 0.3 21.4 -44.1
 183/17:19:00 55 23.6-098 23.2 0434 227.5 044 214 36900 36423 2.4 -0.5 21.7 -44.2
 183/17:20:00 55 19.1-098 32.9 0436 227.5 051 216 36904 36291 2.1 -0.7 20.7 -43.2
 183/17:21:00 55 14.2-098 42.5 0437 227.5 051 218 36923 36277 2.1 -0.4 21.7 -41.1
 183/17:22:00 55 09.4-098 51.8 0436 227.8 054 223 36903 36250 2.2 -0.7 21.4 -43.2
 183/17:23:00 55 04.7-099 01.6 0436 277.9 051 222 36896 36178 2.1 -0.6 20.0 -44.2
 183/17:24:00 54 59.8-099 10.9 0436 277.4 050 221 36905 36143 2.2 -0.3 20.4 -43.2
 183/17:25:00 54 55.0-099 20.3 0433 227.4 057 221 36908 36238 2.0 -0.5 20.1 -42.6
 183/17:26:00 54 50.2-099 30.8 0431 227.5 056 225 36905 36228 2.0 -0.7 18.1 -42.9
 183/17:27:00 54 45.5-099 41.9 0429 228.0 057 230 36901 36220 2.4 -0.8 19.3 -43.9
 183/17:28:00 54 40.8-099 52.9 0429 228.0 057 230 36901 36220 2.5 0.0 21.7 -44.1
 183/17:29:00 54 35.7-099 57.2 0429 227.0 055 222 36906 36103 2.0 -0.6 21.7 -44.2
 183/17:30:00 54 30.0-100 05.1 0430 227.0 053 225 36906 36077 2.2 -0.5 21.3 -44.4
 183/17:31:00 54 26.0-100 15.2 0431 227.1 051 226 36901 36079 2.2 -0.6 21.2 -45.4
 183/17:32:00 54 21.3-100 26.4 0432 227.4 049 229 36900 36065 2.3 -0.6 21.3 -46.4
 183/17:33:00 54 16.3-100 35.3 0434 227.2 041 226 36899 36115 2.3 -0.8 21.3 -46.4
 183/17:34:00 54 11.4-100 42.3 0436 227.2 041 227 36914 36236 2.1 -0.9 13.5 -44.7
 183/17:35:00 54 06.6-100 51.6 0440 227.6 036 233 36912 36151 2.2 -0.8 21.0 -44.0
 183/17:36:00 54 01.4-101 00.7 0441 227.1 041 230 36907 36216 2.1 -0.8 12.3 -46.7
 183/17:37:00 53 56.5-101 09.8 0443 231.7 036 238 36909 36222 2.2 0.1 21.2 -46.3
 183/17:38:00 53 51.7-101 19.7 0444 232.1 044 245 36914 36179 2.0 -0.9 17.8 -45.5
 183/17:39:00 53 47.0-101 29.2 0445 232.0 046 248 36903 36172 2.0 -0.9 23.8 -46.6
 183/17:40:00 53 42.4-101 38.6 0443 232.0 048 252 36907 36195 1.9 -0.6 20.6 -46.3
 183/17:41:00 53 37.7-101 48.3 0443 232.0 050 256 36897 36145 2.1 -0.9 19.5 -47.0
 183/17:42:00 53 32.6-101 57.6 0442 233.3 057 262 36917 36464 1.9 -0.9 17.7 -47.8
 183/17:43:00 53 28.0-102 07.0 0443 233.0 056 261 36896 36469 2.0 -0.7 17.7 -47.0
 183/17:44:00 53 23.3-102 16.6 0441 233.0 056 261 36904 35492 2.2 -0.7 32.3 -47.8
 183/17:45:00 53 18.5-102 25.9 0439 233.1 053 266 36904 36689 2.0 -0.4 19.1 -48.6
 183/17:46:00 53 13.6-102 35.0 0439 233.6 059 269 36894 35145 2.0 -0.8 19.4 -47.0
 183/17:47:00 53 09.1-102 44.4 0438 233.8 050 269 36895 35134 1.9 -1.0 17.3 -47.6
 183/17:48:00 53 04.2-102 53.4 0436 233.5 053 269 36898 35166 2.2 -0.8 18.3 -48.6
 183/17:49:00 53 00.5-103 02.3 0433 233.5 067 264 36918 35400 2.0 -1.0 18.3 -48.2
 183/17:50:00 52 56.7-103 11.5 0429 233.7 064 268 36907 35401 2.1 -0.6 18.0 -48.4
 183/17:51:00 52 50.0-103 20.8 0425 233.2 065 267 36915 35322 2.1 -0.7 18.2 -48.7
 183/17:52:00 52 43.4-103 29.9 0424 232.9 061 266 36904 35433 2.2 0.3 14.9 -48.3
 183/17:53:00 52 36.8-103 39.0 0424 233.7 067 270 36904 35492 2.2 -0.7 32.3 -47.8
 183/17:54:00 52 30.1-103 48.4 0424 233.7 067 270 36904 35492 2.2 -0.7 32.3 -47.8
 183/17:55:00 52 23.4-103 55.0 0422 234.1 073 270 36922 35533 2.1 -0.8 32.6 -48.2
 183/17:56:00 52 16.7-104 03.6 0421 233.4 076 263 36927 35321 1.8 -0.5 25.6 -46.2
 183/17:57:00 52 10.0-104 12.1 0420 233.0 080 260 36919 35275 1.7 -0.4 8.7 -49.8
 183/17:58:00 52 03.3-104 20.4 0418 233.1 079 259 36893 35264 2.0 -0.8 2.5 -50.0
 183/17:59:00 52 17.3-104 20.4 0416 232.6 079 259 36900 35248 1.9 -0.9 18.8 -51.6

183 17.57.36 ADDAS TAPES SWITCHED, EDT

ORIGINAL PAGE IS
OF POOR QUALITY

YEAR 1984 ADDAS FLIGHT LOG --- FLIGHT NO. 13 --- MIKEZ
---TIME---LAT---LONG---GRD TRUE---HOLD---ALTITUDE---
SPD HEAD SPD DIR PRES RADAR IR AIR IR AIR IR AIR
183/18:50:00 52 12.7 104 29.1 0415 080 259 36900 35240 1.8 -0.6 -37.8 -54.2
183/18:01:00 52 12.7 104 29.1 0415 080 259 36900 35240 1.9 -0.6 -36.0 -51.5
183/18:02:00 52 12.7 104 29.1 0415 080 259 36900 35240 2.0 -0.9 -16.6 -53.0
183/18:03:00 51 54.3 105 01.5 0407 075 258 36890 35230 2.1 -0.5 -15.6 -51.8
183/18:04:00 51 49.7 105 09.4 0407 075 257 36912 35490 2.1 -0.6 -9.7 -51.2
183/18:05:00 51 45.1 105 17.5 0408 076 256 36920 35541 2.0 -0.9 -8.3 -51.6
183/18:06:00 51 40.2 105 25.5 0408 077 265 36916 35507 2.0 -0.9 -0.9 -51.0
183/18:07:00 51 35.7 105 33.5 0410 075 265 36904 35502 2.1 -0.6 -39.2 -51.3
183/18:08:00 51 31.1 105 41.5 0411 083 267 36918 35210 1.8 -0.7 -31.2 -54.4
183/18:09:00 51 26.5 105 49.2 0418 089 267 36907 35199 1.8 -0.2 -10.1 -55.4
183/18:10:00 51 20.4 106 02.8 0426 083 264 36909 35245 1.8 -0.6 -19.6 -54.0
183/18:11:00 51 15.9 106 08.9 0426 089 266 36889 35277 1.9 -0.2 -21.6 -54.3
183/18:12:00 51 08.9 106 16.1 0426 087 267 36909 35494 2.2 -0.3 -25.7 -54.0
183/18:13:00 51 02.6 106 14.1 0426 087 267 36909 35494 2.2 -0.3 -25.7 -54.0
183/18:14:00 50 56.7 106 19.3 0427 080 270 36896 35473 2.0 -0.7 -32.0 -54.5
183/18:15:00 50 50.3 106 26.8 0428 087 273 36911 35455 1.7 -0.8 -8.6 -52.9
183/18:16:00 50 45.4 106 32.1 0407 090 270 36888 35324 2.0 -1.0 -30.3 -55.2
183/18:17:00 50 40.7 106 39.8 0408 095 269 36911 35380 1.6 -0.6 -27.9 -54.2
183/18:18:00 50 35.9 106 47.3 0408 095 271 36907 35094 1.7 -0.7 -32.3 -55.1
183/18:19:00 50 30.9 106 54.8 0408 097 271 36911 35249 1.6 -0.7 -27.1 -55.4
183/18:20:00 50 27.4 107 00.1 0407 099 270 36907 35266 1.9 -0.4 -28.0 -56.3
183/18:21:00 50 23.3 107 07.3 0406 109 273 36899 35119 1.9 -0.5 -27.2 -57.2
183/18:22:00 50 21.3 107 09.5 0403 110 272 36904 35015 1.6 -0.8 -58.5 -57.2
183/18:23:00 50 16.6 107 17.1 0400 106 272 36888 34997 2.0 -1.1 -29.7 -57.3
183/18:24:00 50 12.1 107 24.3 0399 107 273 36912 34675 1.7 -0.6 -33.0 -57.0
183/18:25:00 50 07.1 107 31.8 0399 106 271 36901 34675 1.8 -0.7 -22.7 -56.2
183/18:26:00 49 02.5 107 39.3 0397 104 269 36899 34658 1.8 -0.6 -37.8 -55.2
183/18:27:00 49 52.9 107 45.9 0397 102 272 36899 34713 1.9 -0.7 -42.1 -56.4
183/18:28:00 49 49.4 107 51.2 0399 102 270 36901 34765 1.9 -0.7 -40.8 -56.5
183/18:29:00 49 45.3 108 01.1 0400 103 270 36914 34827 1.9 -0.5 -22.1 -56.1
183/18:30:00 49 38.3 108 07.1 0401 103 270 36907 34892 1.7 -0.2 -40.8 -56.2
183/18:31:00 49 33.5 108 11.4 0402 101 270 36905 34402 1.8 -0.5 -45.5 -54.8
183/18:32:00 49 28.8 108 20.6 0401 103 271 36900 34416 2.0 -1.9 -48.0 -56.1
183/18:33:00 49 23.8 108 29.3 0402 103 275 36899 34556 1.9 -0.3 -42.4 -55.4
183/18:34:00 49 19.0 108 36.7 0401 103 274 36902 34686 2.1 -0.4 -21.2 -56.0
183/18:35:00 49 17.9 108 44.2 0400 110 274 36906 34702 1.6 -1.2 -50.5 -55.3
183/18:36:00 49 14.1 108 49.5 0400 110 276 36912 34783 1.7 -0.6 -43.9 -54.7
183/18:37:00 49 09.1 108 56.7 0399 109 277 36911 34809 1.9 -0.5 -35.0 -52.9
183/18:38:00 48 05.5 109 01.4 0398 110 278 36909 34925 2.1 1.1 -4.3 -52.3
183/18:39:00 48 59.5 109 05.0 0398 110 278 36912 34970 1.4 -0.1 -4.3 -52.3
183/18:40:00 48 57.5 109 09.1 0400 109 277 36602 34702 0.2 0.2 -24.4 -52.4
183/18:41:00 48 56.8 109 14.1 0403 109 278 36616 34536 0.1 -0.4 -52.8 -52.9
183/18:42:00 48 54.6 109 17.5 0396 110 278 36695 33912 -0.9 -0.4 -7.3 -51.3
183/18:43:00 48 49.7 109 24.3 0409 109 277 32820 31207 -1.6 -0.7 4.9 -46.1
183/18:44:00 48 44.8 109 31.3 0415 109 272 32870 25995 -1.5 -0.3 4.8 -50.0
183/18:45:00 48 38.5 109 38.6 0421 109 269 27930 25364 -2.9 -0.5 30.4 -51.5
183/18:46:00 48 34.5 109 45.8 0425 109 268 24744 25871 -2.4 -0.5 25.4 -51.9
183/18:47:00 48 29.2 109 52.5 0414 109 265 22322 26145 -1.4 -0.4 16.1 -20.0
183/18:48:00 48 22.0 109 58.5 0404 109 262 19742 17867 -3.4 0.4 23.0 -40.2
183/18:49:00 48 15.6 109 55.5 0320 104 268 16840 10540 -10.5 -90.3 -20.9 -18.6
183/18:50:00 48 12.2 109 43.9 0358 109 270 18058 13791 -1.3 61.4 13.2 -10.0
183/18:51:00 48 08.9 109 50.4 0318 105 268 16666 13425 0.8 0.2 21.1 -11.0
183/18:52:00 48 07.1 109 57.8 0334 045 270 16203 15493 -1.0 -1.3 23.4 -9.3
183/18:53:00 48 05.2 110 00.0 0356 046 270 15008 12651 -1.8 1.0 28.5 -6.3
183/18:54:00 48 01.6 110 23.2 0370 049 272 12031 0371 -2.1 0.4 25.4 -1.3
183/18:55:00 47 59.8 110 29.6 0269 041.4 033 270 12130 9614 -1.3 -5.8 21.9 0.2

AFTER M/P 8 TO 1: WE DIVERTED AND WENT DIRECTLY TO M/P 9.
WE BYPASSED M/P 2 AND 3.

CAMERAS OFF..

STARTED DESCEND.
BACK IN THE USA.

YEAR 1984 ADAS FLIGHT LOG --- FLIGHT NO. 13 --- HIZEX
 ---TIME--- --LAT-- --LONG-- --GND SPEED-- --DIR-- --ALTITUDE--
 SPD HEAD MINS RADAR PITCH ROLL IR AIR

183/18:54:00	47 57.0	-110 35.2	0271	231.5	032	567	11887	9459	3.7	-4.2	21.1	0.5
183/18:55:00	47 53.6	-110 39.8	0285	225.2	031	575	11946	9270	2.2	-0.3	10.0	1.6
183/18:56:00	47 49.2	-110 44.6	0296	227.3	031	576	11848	9342	1.0	0.7	14.2	2.1
183/18:57:00	47 45.6	-110 49.6	0265	228.9	034	571	10604	8016	-0.2	-1.6	14.2	2.1
183/18:58:00	47 43.6	-110 53.3	0253	228.4	034	580	8817	6035	-1.1	2.5	15.2	3.2
183/18:59:00	47 41.0	-110 57.0	0195	230.0	027	274	7662	4729	2.2	-3.3	15.8	10.9
183/19:00:00	47 38.6	-111 03.8	0190	227.1	029	243	6565	3777	1.7	-1.7	16.2	9.6
183/19:01:00	47 36.5	-111 06.1	0189	225.9	032	239	5507	3771	2.2	-1.3	16.5	13.5
183/19:02:00	47 34.5	-111 08.1	0188	225.4	036	238	4718	1631	2.7	0.6	16.9	13.1
183/19:03:00	47 32.7	-111 08.6	0143	223.7	028	229	4038	762	2.0	-0.5	17.4	17.1
183/19:04:00	47 31.1	-111 10.8	0140	224.3	013	238	3324	24372	4.3	-0.6	10.0	20.1

ORIGINAL PAGE IS
OF POOR QUALITY

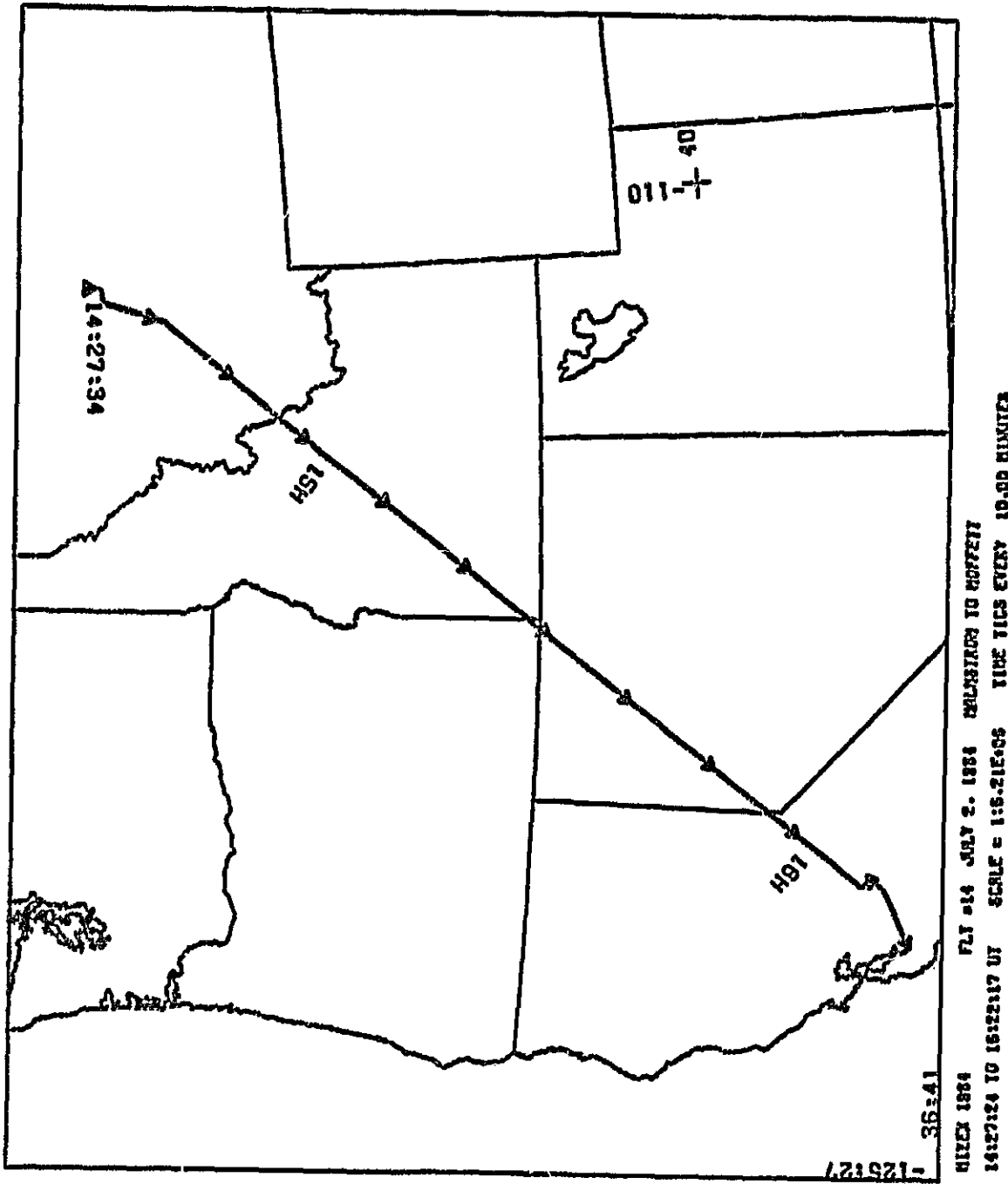


Figure 28. Flight tracks: Malmstrom/Ames 7/2

4. Concluding Remarks

This mission is estimated to have been over 90% successful in terms of infrequent malfunctions of instruments, appropriate timing and locations of flights, and the total time spent over the MIZEX area. A preliminary review of the data has indicated that a number of important eddy events may be followed in a time sequence. While a number of unfortunate circumstances prevented obtaining seasonal extremes in the sea ice surface temperatures during our several flights, it is believed that sufficiently varied data were obtained to aid greatly in improving our knowledge of microwave radiometric properties near the melt point of sea ice. The MIZEX workshops held so far have indicated that these data acquired onboard the CV-990 Airborne Laboratory form, along with the data acquired at the surface, onboard the other research aircraft, and from the Nimbus-7 SMMR, the most comprehensive combination of such data ever obtained in a MIZ during a summer period. This is true both from the standpoint of ice dynamics and thermodynamics and from the point of view of microwave radiative transfer.

5. Acknowledgements

This effort was jointly supported by the Oceanic Process Branch of NASA Headquarters, the Office of Naval Research, and the European Space Agency. We also wish to commend the participants from the Ames Research Center for their excellent spirit of cooperation and skillful execution of this mission. A noteworthy example of this was the research and selection of a new base of operations for us in Norway, which proved not only more efficient than our earlier base at Bodo, but also more delightful and less expensive.

6. Reference

O.M. Johannessen, W.D. Hibler, III, P. Wadhams, W.J. Campbell, K. Hasselmann, I. Dyer, and M. Dunbar, "MIZEX - A program for mesoscale air-ice-ocean interaction experiments in Arctic marginal ice zones; II. A science plan for a summer marginal ice zone experiment in the Fram Strait/Greenland Sea:1984," CRREL Special Report 83-12 (May 1983).

PRECEDING PAGE BLANK NOT FILMED

BIBLIOGRAPHIC DATA SHEET

1. Report No. TM-86216		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle MIZEX '84 NASA CV-990 Flight Report				5. Report Date May 1985	
				6. Performing Organization Code 671	
7. Author(s) Per Gloersen, Erik Mollo-Christensen, Tom Wilhelm, Tom Dod, Richard Kutz and William J. Campbell				8. Performing Organization Report No.	
9. Performing Organization Name and Address Oceans and Ice Branch, Laboratory for Oceans, Goddard Space Flight Center National Aeronautics and Space Administration Greenbelt, Maryland 20771				10. Work Unit No. 85B0399	
				11. Contract or Grant No.	
12. Sponsoring Agency Name and Address National Aeronautics and Space Administration Greenbelt, Maryland 20771				13. Type of Report and Period Covered Technical Memorandum	
				14. Sponsoring Agency Code	
15. Supplementary Notes					
16. Abstract <p>During June/July 1984, the NASA CV-990 Airborne Laboratory was utilized in a mission to overfly the Fram Strait/East Greenland Sea marginal ice zone (MIZ) during the main summer marginal ice zone experiment (MIZEX '84). The eight data flights were coordinated where possible with overpasses of the Nimbus-7 satellite, and with measurement of sea ice, open ocean, and atmospheric properties at the surface. The surface research teams were based on seven research vessels, some with helicopters: M/V Kvitbjorn, M/V Polarqueen, M/S Haakon Mosby, and M/S H.U. Sverdrup, all from Norway, F/S Polarstern from the Federal Republic of Germany, and the USNS Lynch from the USA. There were also coordinated flights with the NRL P3, NOAA P3, Canadian CV580, and the French B-17 during the overlap portions of their respective missions. Analysis of the real-time data acquired during the mission and uncalibrated data stored on tape has served to indicate the mission was over 90% successful.</p>					
17. Key Words (Selected by Author(s))			18. Distribution Statement Category 43		
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages	22. Price*