



Arctic Ice Dynamics Joint Experiment (AIDJEX) Second Pilot Study, March - May 1972: A Documentary Film, Version 1

USER GUIDE

How to Cite These Data

As a condition of using these data, you must include a citation:

Untersteiner, N. 2008. *Arctic Ice Dynamics Joint Experiment (AIDJEX) Second Pilot Study, March - May 1972: A Documentary Film, Version 1*. [Indicate subset used]. Boulder, Colorado USA. NSIDC: National Snow and Ice Data Center. <https://doi.org/10.7265/N5RB72JM>. [Date Accessed].

FOR QUESTIONS ABOUT THESE DATA, CONTACT NSIDC@NSIDC.ORG

FOR CURRENT INFORMATION, VISIT <https://nsidc.org/data/G02183>



National Snow and Ice Data Center

TABLE OF CONTENTS

1	DETAILED DATA DESCRIPTION.....	2
1.1	History	2
1.2	Format	2
1.3	Spatial Coverage.....	2
1.4	Temporal Coverage.....	2
1.5	Film Annotations.....	3
2	SOFTWARE AND TOOLS	3
3	REFERENCES AND RELATED PUBLICATIONS	3
3.1	Related Publications.....	3
3.2	Related Data Collections	4
4	CONTACTS AND ACKNOWLEDGMENTS	4
5	DOCUMENT INFORMATION.....	4
5.1	Document Author.....	4
5.2	Publication Date	4
5.3	Date Last Updated.....	5

1 DETAILED DATA DESCRIPTION

1.1 History

The Arctic Ice Dynamics Joint Experiment (AIDJEX) program was the largest western sea ice experiment constructed specifically to answer emerging questions about how sea ice moves and changes in response to the influence of ocean and atmosphere. AIDJEX brought together several nations and institutions that had a common goal to reach a basic understanding of the air, sea, and ice. The pilot study in 1972 was followed by the AIDJEX field program in 1975 and 1976.

Researchers maintained four, manned camps on ice floes in the Beaufort Sea. On 21 February 1972, the first crew arrived to begin construction of the camp. Seventy-five scientists and support staff were housed in the camp. The scientists collected meteorological and oceanographic data from instruments located at the camps and on floating data buoys. The experiment was designed to collect coordinated measurements over at least one year, in order to have the right combination of data for understanding atmosphere and ice interactions.

The University of Washington led the logistics and research work of the program, which was a collaboration between the United States, Canada, and Japan. Norbert Untersteiner was instrumental in the design of AIDJEX and served as Project Director from 1971 to 1978.

1.2 Format

The film is available via FTP as an MPEG video and has a running time of 51:33 minutes. It was originally transferred to electronic media by Victory Studios of Seattle, Washington, USA.

1.3 Spatial Coverage

The main camp was located 500 km north of Barrow, Alaska, USA and along with two satellite camps, formed a triangle with sides about 100 km in length. The geographic area covered in the film footage is approximately as follows:

Southernmost latitude: 72° N
Northernmost latitude: 80° N
Easternmost longitude: 125° W
Westernmost longitude: 165° W

1.4 Temporal Coverage

This film covers March to May 1972.

1.5 Film Annotations

The table below provides a description of the contents of the film with timestamps for each section.

Timestamp of Film (minutes)	Annotation
12:45 – 17:30	Dr. Norbert Untersteiner, Director of AIDJEX, describes the project goals.
18:42 – 21:47	Dr. Wilson Goddard, University of California, speaks about their team’s project to measure the stability of the pack ice.
22:13 – 24:20	Dr. Hans Weber, Geophysicist, Canadian Department of Energy, Mines and Resources explains his team’s project to measure ocean surface tilt.
25:00 – 28:45	Dr. Kenneth Hunkins, Geophysicist, Columbia University, describes the project to measure oceanographic parameters in the Arctic Ocean.
29:30 – 33:30	Professor Lawrence Coachman, Oceanographer, University of Washington, discusses his team’s project to measure deep ocean flow.
34:40 – 40:25	University of Washington graduate student Alan Thorndike describes his experiment to measure ice deformation. (39:10 – 39:40 movement of ice; great visual)
40:55 – 42:08	Dr. Tadashi Tabata, University of Hokkaido, Japan, explains his observations of internal ice stress.
42:52 – 45:32	Patrick Martin, University of Washington, AIDJEX Office, describes the function and use of automatic data buoys.
46:41 – 49:58	Dr. Untersteiner relates the results of the pilot study.

2 SOFTWARE AND TOOLS

The movie can be viewed with most computer video players.

3 REFERENCES AND RELATED PUBLICATIONS

Unterseiner, N., Thorndike, A.S., Rothrock, D.A., and Hunkins, K.L. 2007. AIDJEX Revisited: A Look Back at the U.S.-Canadian Arctic Ice Dynamics Joint Experiment 1970 – 1978. Arctic 60, no. 3: 327-336.

3.1 Related Publications

Document	Description	URL
The Arctic Ice Dynamics Joint Experiment (AIDJEX)	NSIDC's overview of AIDJEX with links and photos	https://nsidc.org/noaa/aidjex

Document	Description	URL
AIDJEX Electronic Library	University of Washington Web site containing links to copies of AIDJEX Bulletins, Operation Manuals, and other documents	http://psc.apl.washington.edu/nonwp_projects/aidjex/
AIDJEX Revisited: A Look Back at the U.S.-Canadian Arctic Ice Dynamics Joint Experiment 1970 – 1978	Unterseiner's paper on AIDJEX in PDF format from Arctic 60, no. 3	http://pubs.aina.ucalgary.ca/arctic/Arctic60-3-327.pdf

3.2 Related Data Collections

The following related data collection is available on NSIDC's Web site.

[Arctic Ocean Drift Tracks from Ships, Buoys and Manned Research Stations, 1872-1973](#)

4 CONTACTS AND ACKNOWLEDGMENTS

Acknowledgements:

NSIDC would like to acknowledge Dr. Norbert Untersteiner for his contribution of the film and his efforts to make it available. We also acknowledge the University of Washington Polar Science Center for their financial support of digitization of the original film.

5 DOCUMENT INFORMATION

5.1 Document Author

Allaina Wallace

5.2 Publication Date

December 2008

5.3 Date Last Updated

December 2020