Ocean Survey 339081

STAR III (Submarine Test & Research Vehicle)

STAR III is a small two-man oceanographic research submersible equipped with lights and cameras. It was leased by the Navy from General Dynamics/Electric Boat Division.

During August 1968, three Air Force officer observers from the Directorate of Nuclear Safety and three submarine pilots from General Dynamics/Electric Boat Division. Performed deep submergence operations in STAR III during the final phase of the Creasted Ice Project. The purpose was to survey the ocean floor in the accident site area to determine

Most diving operations during Crested Ice were conducted to depths of 100 fathoms (600 feet)

One item found was the "A" frame that was used during the crash recovery and cleanup effort and left on the ice. When the ice melted it sank to the ocean floor and thus became a marker of sorts.

The search for weapon debris on the surface of the ice was completed on February 20. Essentially all Tuballoy secondary pieces had been identified by serial number or fit to be associated with weapons 690020, 453171, and 815950. No pieces identifiable as belonging to weapon 4 have been found. This weapon was located in the left forward clip (as one looks forward). The search resulted in the recovery of almost all of the seconaries from three of the four weapons.

The weapon components were searched for by teams of men who walked across the ice and surveyed the entire accident area.

On March 18, three days after the cleanup of the "blackened area", American and Danish scientists met in Washington, DC to review the progress of the cleanup and consider what actions needed to be taken to remove the contaminated snow and to provide for a continuing program of ecological survey of the area. At the end of the two day meeting a "gentleman's Agreement" was issued that detailed U.S. and Danish responsibilities during the final stages of Project Crested Ice. Article 11 of the agreement indicated that a possible sea bottom search be studied and that should a search be undertaken, the results would be made abailable to the Danish AEC (Ref. 95 of SAC historical report).

In a memo from Brig. Gen. Edward Giller, AEC/DMA on April 18, 1968 to the AEC Commissioner, the DoD requested consensus of the AEC on the desirability of an underwater search for missing weapon debris. The memo acknowledged the additional interest in an underwater search as stated in Article 11 of the "Gentleman's Agreement" (Ref. Giller to Chairman Seaborg and AEC commissioners). The memo raised the caution that "On the one hand, a search leads to questions about what might be missing and clearly an extensive search might not be successful. On the other hand, a search

might local sensitive classified debris which another nation might recover if the U. S. did not.

References:

STAR III underwater search vessel arrived at Thule Air Base on August 12 to begin the underwater search phase of Operation Crested Ice.

Msg. 061625Z Aug 68: Crested Ice Report 10, Week ending 2 Aug 68, Ocean Bottom Survey.

Confidential Msg. R271513Z Jul 68 from CSAF received and authorized conduct of ocean bottom survey beneath B-52 impact point.

Ecological survey is being continued. Search of shorelines and collection of biological, ice, ocean bottom and shoreline samples.

Msg. 131930Z Aug 68: Crested Ice Report 11, Week ending 9 Aug 68, Ocean Bottom Survey.

Ecological survey of shorelines and other areas using MV Atlanta continues. No B-52 debris found.

Preparations underway to receive STAR III now schedules to arrive on 12 August.

Msg. 141450Z Aug 68: Crested Ice Report 12, 12 Aug 68, Ocean Bottom Survey.

STAR III arrived today.

USAF Officers Lt. Col. Neal, Lt. Col. Russel and Maj. Roe, AFINS also arrived today.

Plan of operation is to sit up surface navigation points on 13 August and check out of boat systems.

Msg. 151855Z Aug 68: Crested Ice Report 13, 13 Aug 68, Ocean Bottom Survey.

Preparation of STAR III proceeding ahead of schedule. Plan operational wet at 1800 today. If satisfactory will start survey operations 14 August.

Msg. 191625Z Aug 68: Crested Ice Report 14, 14 Aug 68, Ocean Bottom Survey.

STAR III wet test yesterday, 13 Aug. successful. Underwater visibility of 15-10 feet at 200 foot depth. Established shore repeater stations for navigation. Heavy fog delayed operations.

Danish ecological survey is preceding with no change in results.

Msg. 201545Z Aug 68: Crested Ice Report 15, 15 Aug 68, Ocean Bottom Survey.

STAR III operation got under way at 1005 hours. STAR III left pier under tow at 1120 hours. Tow time to crash site datum point was 2.5 hours. Transponder placed of bottom of datum point by 1500 hours and initial operational dive with Lt. Col Russell, AFINS on board as observer. Dive still in progress. Results tomorrow, Aug 16.

Danish survey in continuing with collection of a number of samples including water, bottom lichen and mussels.

All shorelines have been searched except for small section of Saunders Island west of Moriussak. No radioactivity found.

Msg. 201650Z Aug 68: Crested Ice Report 16, 16 Aug 68, Ocean Bottom Survey.

Yesterdays mission consisted of about 2 hours of random bottom surveying near datum point. Sighting of some small pieces of aircraft debris - Aircraft skin and frame members. Depth of datum point measured 600 feet by STAR III instruments.

STAR III crew worked until 0300 after completing yesterdays mission doing minor repairs. At 1600 hours crew set out for crash site. Anticipate dive at 2000 hours with Major Roe as observer.

No change in Danish ecological mission except statement by Dr. Vibe that all but the usual health physicist will depart on SAS for Copenhagan on 26 August.

Msg. 201640Z Aug 68: Crested Ice Report 17, 17 Aug 68, Ocean Bottom Survey.

After minor equipment repair and check out, STAR III proceeded to survey ares, departing dock at 1700 hours on 16 Aug. Anticipate bay trials of underwater navigation system about 1800 hours.

Msg 201615Z Aug 68: Crested Ice Report 18, 18 August 68, Ocean Bottom Survey.

Star III arrived datum point at 2115, made dive and arrived bottom (615 feet) at 2245.

Underwater navigation system failed to operate in search area preventing an systematic underwater search.

STAR III became entangled in line positioned on bottom to indicate direction and distance from datum point. Most of the 2.5 hour dive used unsuccessfully to get free of fouled line.

This dive did proved, however, that there are fragments of aluminum skin and frame members in the immediate vicinity of the datum point.

Underwater navigational system apparently works in shallow water but not at depths of 600 feet. The alternate navigational system will use a marked circling line that will tether STAR III to a plumb descending line located at the datum point. This will allow STAR III to operate at marked distances from the datum point in ever larger circles, eventually covering the necessary area.

Documentary 35mm pictures taken so far confirm eyeball observation by USAF observers as to existance of bits and pieces of aluminum in close proximity to datum point.

Msg 211534Z Aug 68: Crested Ice Report 19, 19 August 68, Ocean Bottom Survey.

STAR III made dive number 4 on 18-19 Aug. Underwater navigation system discussed in report number 18 failed again and dicission was made to use alternate method described in report 18 for remainder of mission.

Other problems continue to plague STAR III. Hydraulic system on manipulator and the 35 mm camera drive failed but video tape of area in vicinity of datum point was obtained. Results confirm previous eyeball and 35 mm reports of scattered aircraft debris.

MV Atlanta and Danish ecological mission continues.

Msg 221730Z Aug 68: Separate Msg relating to SITREP Report 19, 19 August 68, Ocean Bottom Survey.

Since arrival STAR III had been beset with mechanical & electrical problems. She has performed four operational dives at crash site and due to equipment difficiulties and failure of underwater navigational system, the total result is that we know there are scattered aircraft fragments on the ocean floor.

A large portion of the lost time is unsuccessful attempts to use the underwater navigational system.

Msg 221640Z Aug 68: Crested Ice Report 20, 20 August 68, Ocean Bottom Survey.

Departure of STAR III delayed due to continuing manipulator mechanical problems. Dive today will be made without it.

STAR III will attempt to use tether navigator system described in report 18. Distance from datum point will be determined by observing range markers on tether line.

Msg 262017Z Aug 68: Crested Ice Report 21, 21 August 68, Ocean Bottom Survey.

Fog moved into survey area at 0245 hours on 21 Aug. Manipulator has been removed from STAR III and she was launched at 1700 hours on Aug 20 without it. She began dive number 5 at 2125 hours. Visibility on bottom was good. The modified tether survey method worked good. Fifteen foot circles around datum point. 35mm camera failed again but video worked. Visual observation by Maj Roe was excellent. A considerable quantity of aircraft pieces were found.

Msg 262015Z Aug 68: Crested Ice Report 22, 22 August 68, Ocean Bottom Survey.

STAR III was able to complete 3 hour mission for operational dive number 6. Five circular tracks made without seeing aircraft debris. May be duw to shift of datum point following moving A frame.

STAR II scheduled to depart dock at 0600 hours for dive number 7.

Msg 282100Z Aug 68: Crested Ice Report 23, 24 August 68, Ocean Bottom Survey.

Took 3 hours to relocate datum point. STAR III submerged at 1200 hours for operational dive number 8. Dive continued for 4 hours 20 minutes. Excellent 35mm and video photos obtained. Appears that debris extends in northernly direction from slightly south of datum point to the 180 foor circle. Debris concentration heavy to the 120 foot circle. Two different rad fabric bags were sighted. About 45 percent of the required area has been surveyed. Two more missions as successful as Nr. 7 will complete task.

Msg 301630Z Aug 68: Crested Ice Report 26, 27 August 68, Ocean Bottom Survey.

Dive 10 delayed until 1105 while new tether line was rigged. Submerged at 1333 and made one orbit at a distance of 255 from datum point. While positioning for next orbit, the reference rope line became snagged in rocks on the bottom.

Msg 292140Z Aug 68: Crested Ice Report 27, 28 August 68, Ocean Bottom Survey.

STAR III dive number 11 mentioned in para 4 of report 26 was not able to resume mission after iceberg dislodged datum point marker and halted dive operations. Dive 11 revea;ed little additional coverage. Video tape was taken for about 5/8th of the 270 foot circle. About 80 percent of STAR III mission complete.

Msg 0320000Z Sep 68: Crested Ice Report 28, 29 August 68, Ocean Bottom Survey.

STAR III with equipment, crew and AFINS observers departed Thule at 1110 hours today

The issue concerning the missing secondary was raised in March 1995 by the Danish government following the release by DOE of 317 documents concerning the Thule, Greenland accident. The Danish government, after studying these documents, raised nine questions about the accident. Question 3 makes reference to a letter from Sandia Corporation to the AEC dated April 16, 1968 that addresses the "missing object" that the U. S. searched for at the bottom of the sea. making reference to (Ref. 5-38). Through the U. S. State Department the Danish government inquired about a "missing object" in the bottom of North Star bay.