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TRIP TO BOMB CRASH SITE NEAR THULE

BNES:JNW

|                        |                                       |
|------------------------|---------------------------------------|
| February 9, 1968       |                                       |
| US DOE ARCHIVES        |                                       |
| 326 U.S. ATOMIC ENERGY |                                       |
| COMMISSION             |                                       |
| RG                     | Collection <u>Des McCraw</u>          |
|                        | <u>GREENLAND</u> 18 Job 1320          |
|                        | Box                                   |
|                        | Folder <u>Thule Accident, Paper 1</u> |

On January 29, 1968, I left Andrews Air Force Base, Washington, D. C. in an Air Force plane at about 4:00 PM arriving Plattsburgh, New York, at 5:40 PM. I was to make connections with a flight bound for Thule, Greenland to discuss arctic ecological problems associated with the crash of a B-52 plane carrying four thermonuclear bombs.

The Thule flight was delayed until the morning of January 30, however, because of bad weather conditions in Thule.

I arrived Thule at 1:40 PM on January 30, was briefed by Dr. Wright Langham, Dr. H. D. Bruner, and Major General R. O. Huntziger who had arrived earlier the preceding week.

It was reported that the high explosive element of the devices had detonated releasing plutonium of all four bombs to the environment. Two storms characterized by high winds dispersed plutonium of crash debris over the ice and snow-covered land and seascapes. The plane crashed in North Star Bay, about seven miles from Thule, tearing a hole in the ice estimated to be 30 meters in diameter. How much debris went into the water had not been determined, but it seemed significant to me that no part of the plane's tail had been found as of February 2.

On January 31 we were briefed by a group of Danish scientists, with emphasis on the food web and ice behavior. A food web chart is included in this report.

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The Danes were mostly concerned about concentration of plutonium in some link of the food web.

However, my own opinion of this possibility is in contrast to their judgements for the following reasons:

1. Plutonium not dispersed on wind-blown metal is deposited on metal and in the ice at the crash scene, and possibly some entered the water.
2. With the melting of the ice surface beginning about May 1, this will be released, and with ice break-up about July 1, it will be widely dispersed in the sea.

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3. High tides of spring (8-10 ft.) will increase the mixing.
4. Icebergs scraping the sea floor will also contribute churning action that will further mix the debris.
5. Plutonium is not likely to enter the food web to any extent because it is insoluble, concentrates in the gut of food links of the eskimo and is soon eliminated.

Dr. Max E. Britton, Head, Arctic Section, Office of Naval Research, has suggested that a coat of lamp black be applied to the ice at the crash site. This would hasten melting of the ice and permit sinking of all debris at the crash scar before the advent of the spring tides. With this notion, I concur.

The Danes are eager to get mussels, walrus, seal and fish samples immediately because "dilution effects will make analysis difficult later." I believe this is precisely the case, whether or not samples are taken now. It seems certain that they will attempt to collect all plants and animals they can get, and I think it will be difficult to challenge their position.

Attachment:

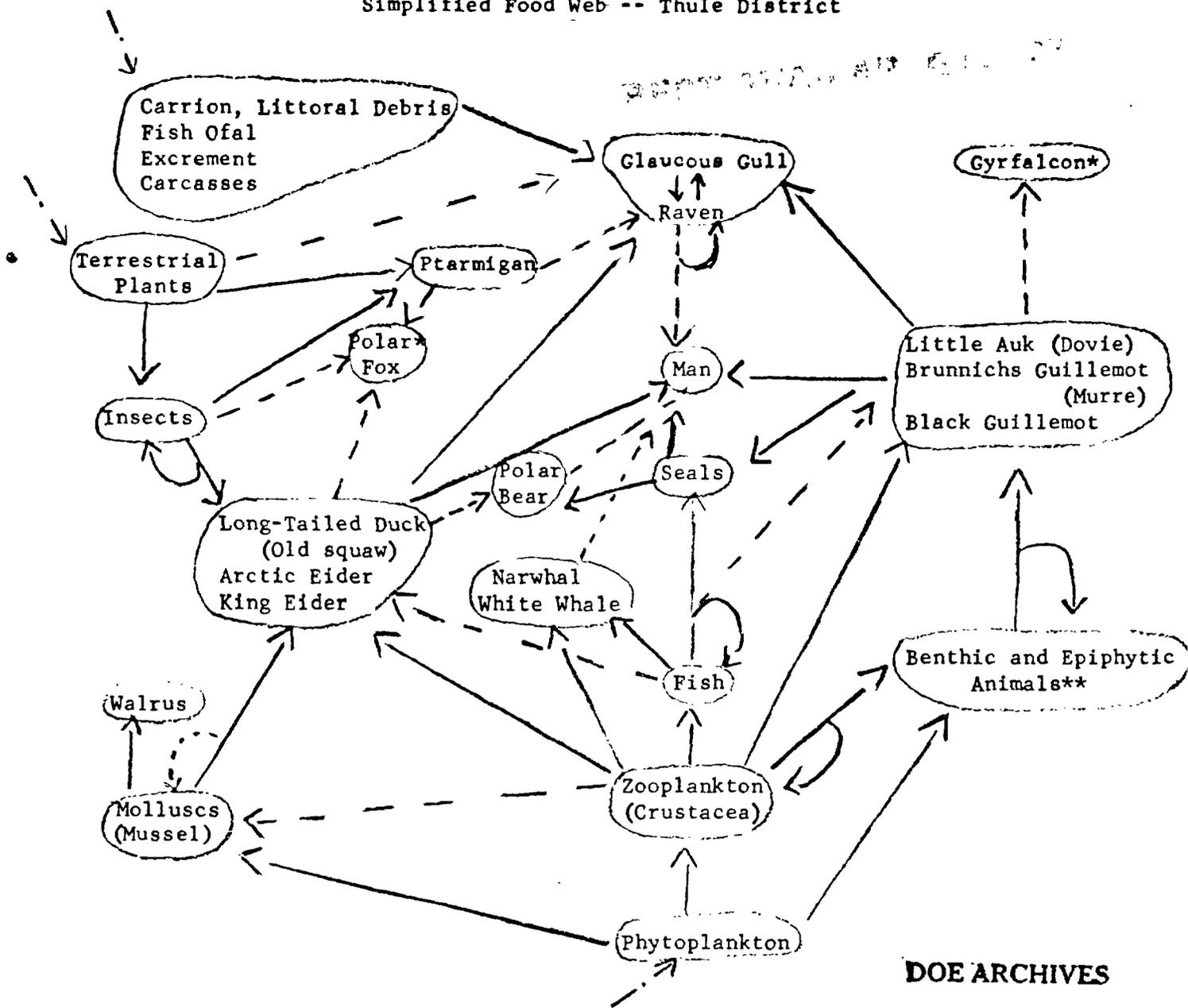
Chart on food web

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cc: J. R. Totter  
J. B. Storer ✓  
H. D. Bruner, M.D.  
J. S. Kirby-Smith

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Simplified Food Web -- Thule District



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- Main pathway ———>
- Secondary pathway - - - ->
- Input obvious - . ->

\*\* Particularly important for Black Guillemot  
 \* Main input from terrestrial food webs not shown.