

CENTRAL AND SOUTHERN TRANSANTARCTIC MOUNTAINS REGION WORKSHOP

C. Logistics to accomplish the science objectives

1. Available mix. Potentially, the basic logistic support consists of the heavy lift, ski-equipped LC-130 aircraft, the limited load-capacity and range performance Twin Otter, and helicopters. The LC-130 aircraft have placed many small parties in the field for self-contained operations with surface transport (snowmobiles). These aircraft have also serviced various helicopter-supported field camps, providing the ability to build temporary housing and other facilities at remote field sites and supply the large amounts of fuel needed for sustained helicopter operations. Twin Otter aircraft are a more recent addition to the logistic capabilities and have provided invaluable support for small parties needing transport to distant localities for short durations as well as for camp moves. Helicopter support was formerly provided exclusively by the US Navy UH1N Bell helicopters, but recently small Squirrel (A Star) helicopters have proven to be most effective in support of fieldwork.

2. Research support scenarios. Three basic scenarios can be envisaged:

i) A traditional large field camp. The Shackleton 1995-96 field camp is an example. It accommodated 12 individual projects with 56 scientists who were supported by 7 ASA camp personnel; two helicopters were deployed for eight weeks (three UH-1N helicopters provided equivalent support for previous remote field camps of this type); two separate weeks of Twin Otter time provided additional logistic resources.

ii) A small helicopter-supported field camp. The Beardmore 1990-91 field camp is an example. It accommodated eight projects with 29 scientists who were supported by 5 ASA personnel. Field projects also operated, prior to the 4 weeks of helicopter support, with surface transport. Twin Otter-type support (Ganovex Dornier aircraft) was also provided for a limited time.

iii) Individual field projects. Perhaps two to four projects located in the same region, placed in the field by LC-130 or Twin Otter, and requiring limited helicopter or Twin

Otter support. Such support might be one to two weeks duration and perhaps split into two periods during the field season.