

I. PREAMBLE

The United States National Aeronautics and Space Administration (NASA) and the Canadian Space Agency (CSA), herein referred to as "the Parties," have identified a mutual interest in the development of the Canadian Torso Rotation Experiment (TRE) for use on the U.S. Space Shuttle during the Life and Microgravity Spacelab (LMS) mission, which is scheduled to launch in June 1996.

II. GENERAL PROGRAM DESCRIPTION

The Parties have confirmed a mutual interest in a flight of CSA's Torso Rotation Experiment (TRE) on the Life and Microgravity Spacelab (LMS) mission. This mission is currently scheduled for launch in June 1996 and NASA will be responsible for the design, definition, and performance of the LMS mission.

This Memorandum of Understanding (MOU) provides for cooperative work in life sciences for the flight of TRE as either a Shuttle middeck experiment, or as a part of the primary payload on the Spacelab. The TRE, which keeps the head and torso aligned, will monitor eye, head, and torso movements of crew during normal on-orbit activities. This experiment will allow for study of the symptoms associated with motion sickness in space. Motion sickness is a debilitating affect felt by many astronauts on orbit due to unknown causes. This experiment will test a hypothesized cause. CSA will provide the space-qualified hardware to NASA. NASA will provide the flight opportunity. Joint CSA-NASA science utilization is planned, wherein NASA Life Sciences Division will provide resource support for a co-investigator, and CSA will provide resource support for a principal investigator. NASA and CSA will share utilization for this experiment approximately equally.

III. PAYLOAD SPECIALIST'S MISSION AND TRAINING ACTIVITIES

Flight of a Canadian Payload Specialist in connection with the LMS mission is contingent upon successful completion of all aspects of the required training, and any standard preflight crew certification procedures (e.g., medical), to the full satisfaction of NASA prior to certification as Payload Specialist. The Canadian Payload Specialist will participate in all mutually agreed activities in accordance with the mission flight plan.

CSA agrees to require that its Payload Specialist candidate enter into a Standards of Conduct Agreement. CSA will ensure that its candidate complies with the provisions of such an Agreement.

In preparing for the mission and post mission activities, NASA will be responsible for providing all STS and mission peculiar training. This will include the following:

1. Preparation of a training plan and detailed schedules and procedures training;