Hughes Aircraft has revealed more details of the Intelsat VI communications satellites that will be launched by Hughes (Flight, April 10, page 925). The satellite series is claimed to be the largest and most sophisticated in the world—ever. Hughes aircraft is responsible for the design, manufacturing, and launching of the satellites. The series includes several components such as solar cells, microwaves, and traveling-wave tubes.

Members of the Hughes team and their responsibilities are as follows:

**Hughes Aircraft**

- **C-band communications receivers**, travelling-wave tube amplifiers, and bus electronics
- **Spar Aerospace**
  - C-band communications receivers, and K-band communications receivers, and all K-band travelling-wave tubes.
- **AEG Telefunken**
  - Solar cells for structure and manufacturing of the solar arrays
- **Nippon Electric**
  - K-band communications receivers, and all K-band travelling-wave tubes.
- **British Aerospace Dynamics**
  - Microwave filters
- **Design and manufacturer of the solar arrays**
- **Selenia**
  - Telemetry and control receivers and antennas, K-band horns, and spot-beam antennas
- **British Aerospace Dynamics**
  - Shuttle cradle (see diagram below), C- and K-band antennas, and structures and harnesses to a Hughes design
- **Comdev of Canada**
  - Microwave filters
- **Messerschmitt-Bolkow-Blohm**
  - Design and manufacturer of the solar arrays
- **British Aerospace Dynamics**
  - Shuttle cradle (see diagram below), C- and K-band antennas, and structures and harnesses to a Hughes design
- **Comdev of Canada**
  - Microwave filters
- **Messerschmitt-Bolkow-Blohm**
  - Design and manufacturer of the solar arrays
- **Selenia**
  - Telemetry and control receivers and antennas, K-band horns, and spot-beam antennas

Hughes has succeeded in placing almost 23% of the Intelsat VI work with these companies. This falls short of the total Intelsat usage of these countries, which is about 35%. The discrepancy will be made good by Hughes subcontracting other satellite work. Britain’s share of Intelsat VI is about 15%, and it stands to get about $85 million of non-Intelsat VI work—$15 million of which will go to Marconi Space and Defence Systems. The discrepancies for France and West Germany are $60 million and $40 million respectively, and all of them will be spread over eight years.

The first Intelsat VI will be delivered in late 1985, for a 1986 launch.

**Aussat order imminent**

Australia is expected to sign a contract with Hughes Aircraft early next month, for the purchase of three domestic communications satellites. The contract is expected to be worth $170 million-$180 million, and follows a decision to negotiate with Hughes made last December.

Each satellite is of the Hughes 376 series, and will have 24 transponders. Each transponder can handle at least 1,200 telephone calls. Australia plans to launch its first Aussat in spring 1985. The second craft would follow several months later, but the third would be a ground spare.

Australian offsets are a part of the deal, but details are not yet available.

Hughes currently has 26 Type 376 satellites in various stages of construction. The customers for them include AT&T, Western Union, and Indonesia.

**Fokker makes Ariane a parachute**

Fokker is about to deliver to CNES, the French space agency, an Ariane interstage which includes a parachute for recovering the first stage. The parachute recovery will be tested on the third operational Ariane launch, to see what damage the stage suffers. This particular stage will not be re-used, but will aid a decision on whether to continue with the technique in future. Fokker says that several million dollars could be saved from each launch by recovering the first-stage engines and propellant tanks.

After the first stage has burned out and separated at a height of 40km, it free-falls to 6km, when two drogue parachutes are deployed. These stabi-