

No. 74 - December 1993

# TELESCOPES AND INSTRUMENTATION

## **News from Council**

The following is Section 1 (the section relevant for the VLT Project) of the resolution issued by Council during its meeting of December 2, 1993:

In its October 4 and 5, 1993 meeting Council expressed its approval of the revised VLT/VLTI project as referred in June 1993 Cou-483 for content, schedule and staff. Financial difficulties discussed in the Finance Committee meeting of November 8 and 9, 1993 and recent

expression of concern in a diplomatic note from the French Government have led to reconsideration of this plan.

Following the presentation and discussion of different alternatives for cost reduction, Council adopts further modifications to the VLT programme plan. This includes the postponement of the implementation of VLTI, VISA, Coudé Train and associated adaptive optics for all telescopes. In consultation with the

Scientific Technical Committee a solution will be sought to introduce adaptive optics at the Nasmyth foci at the earliest possible time.

Furthermore, the Executive will endeavour to reintroduce full Coudé and interferometric capabilities at the earliest possible date. This will include provisions for continuing technological research and development programmes devoted to this end.

## VLT News from the VLT Division

M. TARENGHI, ESO

The status of VLT activities is shifting more and more from the design to the construction phase. Major progress was achieved in the following areas:

#### Mechanical Structure

The detailed design of the structure is reaching completion. The calculated lowest locked rotor eigenfrequency is 8.1 Hz around the elevation axis and about 10 Hz around the azimuth axis. To obtain this and to optimize the manufacturing,

the mass has increased with respect to the original design. The maximum total moving mass is 450 tons which include 320 tons of structural steel.

A demonstration test of the encoder was carried out successfully. This encoder uses two laser interferometers and a number of flat mirrors fixed on the structure. Each mirror can cover a range of about 4 degrees and the two heads permit the transition from one mirror to another without the loss of information.

#### **Enclosures**

The design and construction of the enclosures were contracted to the SEBIS Consortium in Italy. The final design is near to completion (January 1994).

Wind tunnel tests have been performed for the assessment of wind loads on a single enclosure. Additional tests will be performed in November 1993 to study the interference between the enclosures.