

## PREFACE

The ACTS Propagation campaign will complete the planned five years of Ka-band data collection at seven sites by December 31, 1998. Through this effort, NASA is making a major contribution to the effective utilization of this band by providing timely propagation data and models for predicting the performance of Ka-band links between space and ground. The Eleventh ACTS Propagation Studies Workshop (APSW XI) was held in Oklahoma City, OK, at the Embassy Suites. This set of proceedings contains the presentations from that workshop.

This year the ACTS workshop focused on four areas:

- 1) Latest results and findings from ACTS propagation experimenters.
- 2) Theoretical and empirical considerations for propagation prediction models including interaction of precipitation with the antenna for design of satellite systems at Ka band.
- 3) Plans for dissemination of the findings of the ACTS Propagation Campaign.
- 4) Consideration of NASA's ACTS blue ribbon panel findings regarding the ACTS propagation campaign.

Session 1, Spacecraft and Program Updates, chaired by R. Acosta, provided an overview of ACTS spacecraft and program status as well as an update on NASA propagation studies by N. Golshan.

Session 2, Status Reports, chaired by L. Ippolito, provided status reports from ACTS propagation experimenters at seven Ka-band measurement sites, a summary of attenuation observations for all seven sites, and a status report from the ACTS Propagation Data Center.

Session 3, Special Topics, chaired by J. Goldhirsh, included reports on propagation effects modeling and revision of NASA's propagation handbooks.

Session 4, Propagation Campaign With ACTS in Inclined Orbit, chaired by R. Acosta, included a report by R. Bauer on the findings of NASA's ACTS Blue Ribbon Panel regarding propagation experiments during ACTS inclined orbit, and a report by D. Westenhaver on propagation terminals tracking ACTS in inclined orbits. Session 5, Plenary, was chaired by R. Crane and D. Rogers.

The success of the meeting owes a lot to the speakers and session chairs and the active participation of all attendees. We would like to express our thanks to Ms. M. Wilkins of JPL and to Ms. C. Jones of the University of Oklahoma for meticulously caring for many administrative details of the meetings. Last but not least, we would like to thank Roger Carlson of the JPL technical information section for coordinating the publication of this document.

The next ACTS Propagation Studies Workshop will take place in conjunction with NASA Propagation Experimenters (NAPEX) Meeting in the greater Washington DC area in early June 1999; the exact date and location will be announced by January 1999.