

## INSTITUTE OF NAVIGATION

**Ron Beard, Naval Research Laboratory:** I would like to give a brief report on the Institute of Navigation's — actually the Satellite Division's meeting — on the Global Positioning System, which was held in Salt Lake City on the 21st through the 23rd of September of this year. This was the sixth international technical meeting of the Satellite Division, so it was a relatively young meeting. However, it is a very fast-growing meeting. At the first meeting, I think the attendance was on the order of this meeting, or perhaps a little less (at the first meeting); the sixth meeting, this last September, I think the attendance was around 1300 people. It has grown enormously.

There were 21 sessions in three days, three of which were running simultaneously for most of the sessions, except the beginning session which was a plenary one. It was held at the convention center in Salt Lake City and took up a large fraction of the center; so it is a large meeting. It was preceded by two days of tutorials given by the Navtech Information Company, who did a very extensive tutorial session on GPS and the various applications of it.

One session, Session 2-C, was the Range Applications and the PTTI session. It was combined with Range Applications from the prior year because of the lack of papers. However, this year PTTI dominated the session. There were six papers given and they were all on PTTI. Overall there were 203 papers given in the conference, eight of which came from students. They have a student competition that students can compete in when coming to the conference at ION expense and membership in ION and that sort of thing. Twenty five abstracts were submitted, of which eight were chosen and presented at the meeting.

If you compare the ratio of papers, four percent of the papers given dealt with PTTI. That is interesting, considering PTTI was probably your first operational use of GPS and is one of the strongest support for that system. However, the applications of GPS are so diverse and are being integrated into so many systems that it is difficult to keep up in all these different areas. For example, the sessions ranged from geographic information systems to spacecraft orbit trajectory, GPS receiver technology, military applications, attitude determination, marine navigation, unique or unusual applications, differential navigation, integrity, ionospheric observations, observing the earth, vehicular navigation. The applications of GPS seemed almost endless.

The contributions of PTTI into this conference I think is somewhat disappointing, considering the low percentage of participation on that score. So I would encourage anyone here — and I know a number of people here were also at that meeting — to submit more papers. The planning committee for this meeting is concerned about that, as to whether to even offer it as a session during their meetings, because of a lack of papers. I would encourage everyone to submit papers on this so that we can really show what the contribution of PTTI and use of GPS really is in this area. Thank you very much.