

REPORT OF THE IEEE/AESS GYRO AND ACCELEROMETER PANEL – Attachment 1.A

March 2004

Panel Activity

The PAR for P1431 “Specification Format Guide and Test Procedure for Coriolis Vibratory Gyros” was extended until December 2004. The ballot on P1431 was successful, but resulted in comments. These comments were resolved at the November GAP meeting. P1431 was submitted for a recirculation ballot that was successful. P1431 is currently in the hands of the IEEE editors.

The PAR for P1554, “IEEE Recommended Practice for Inertial Sensor Test Equipment, Instrumentation, Data Acquisition, and Analysis” was extended until December 2005. P1554 nears completion. Only a few outstanding homework assignments remain.

Much progress was made on P1559 “IEEE Standard for Inertial Systems Terminology” at the January GAP meeting. Now that P1431 is complete and P1554 nears completion, progress on P1559 should improve.

Some progress was made resolving the Allen Variance discrepancies between Annex B and Annex C of Std 647 “IEEE Specification Format Guide and Test Procedure for Single Axis Laser Gyros.”

Arkady Sinelnikov has provided the double turntable centrifuge annex for Std 836. Mike Ash is in the process of reviewing it. The IEEE editors have informed us that they will no longer accept a list of changes to be incorporated into Std 836 by the editors. Mike Ash will now have to convert the existing document from Macintosh Word 5 so that it can be updated. This is expected to be a large effort.

The Panel continues to work on the following documents:

- P1554 “IEEE Recommended Practice for Inertial Sensor Test Equipment, Instrumentation, Data Acquisition and Analysis.”
- P1559 “IEEE Standard for Inertial Systems Terminology.”
- Std 647 “IEEE Specification Format Guide and Test Procedure for Single Axis Laser Gyros.”
- Std 836 “IEEE Recommended Practice for Precision Centrifuge Testing of Linear Accelerometers”

Officers

At the November 2003 meeting, the following officers were elected for the year 2004:

Panel Chair	Randall Curey
Panel Vice Chair	Cleon Barker
Accelerometer Committee Chair	Dr. Michael Ash
Gyro Committee Chair	Cleon Barker

Mike Ash was re-appointed as the IEEE Liaison for the year 2004.

Objectives

The Panel established the following objectives at the January 2004 meeting:

Panel

1. Continue working on P1559, “IEEE Standard for Inertial Systems Terminology.”
2. Identify the topic of the next specification to be developed.
3. Expand membership.

Gyro Committee

1. Publish P1431, "IEEE Specification Format Guide and Test Procedure for Coriolis Vibratory Gyros."
2. Continue revision of IEEE Std. 647, "IEEE Specification Format Guide and Test Procedure for Single Axis Laser Gyros."
3. Upon completion of IEEE Std. 647, make the same revisions, as appropriate, to IEEE Std. 952, "IEEE Specification Format Guide and Test Procedure for Fiber Optic Gyros."
4. Continue to compile new or revised sensor terminology to be incorporated in the next revision of Std 528, "IEEE Standard for Inertial Sensor Terminology."

Accelerometer Committee

1. Finish P1554, "IEEE Recommended Practice for Inertial Sensor Test Equipment, Instrumentation, Data Acquisition, and Analysis."
2. Revise Std. 836-2001, "IEEE Recommended Practice for Precision Centrifuge Testing of Linear Accelerometers" to fix g units.
3. Continue to compile new or revised sensor terminology to be incorporated in the next revision of Std 528, "IEEE Standard for Inertial Sensor Terminology."

Meetings

Since September 2003, the Panel has held three meetings:

Dates	Location	Attendance
20/21 November 2003	Albuquerque, NM	4
12/13 January 2004	Huntsville, AL	16
8/9 March 2004	Charlottesville, VA	8

The April 2004 meeting will be in Monterey, CA. It will be held in conjunction with PLANS 2004.

Membership

After the call for renewal, the status is:

- 30 Members (10 Producers, 14 Users, and 6 General Interest)
- 44 Info-Only (15 Producers, 14 Users, and 15 General Interest)

Since September, six member and five info-only applications have been received.

Other

The January GAP meeting was hosted by Miltec Missiles and Space Company. The meeting had a good size turnout and resulted in three new members. The GAP plans on finding more unrepresented companies to host future meetings.

Randy Curey, Mike Ash, Lee Thielman and Cleon Barker co-authored a paper titled "Proposed IEEE Inertial System Terminology Standard and Existing Inertial Sensor Standards", which will be presented at PLANS 2004.

IEEE Std 528 “Standard for Inertial Sensor Terminology” is being submitted by the IEEE for IEEE/IEC Dual Logo publication.

Respectfully submitted,

A handwritten signature in black ink, reading "Randall K. Curey". The signature is written in a cursive style with a large initial 'R' and a distinct 'K'.

Randall Curey

Chair, IEEE/AESS Gyro and Accelerometer Panel