

Texas A&M cyclotron radiation effects facility
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The activity of the Radiation Effects Facility (REF) decreased over the previous reporting year. In this reporting period, the facility was used for 2,399 hours, which is a ~9% decrease over the 2,626 hours used in the 2012-2013 reporting period. However last year was the second highest usage year ever and nearly 800 hours were lost to unscheduled maintenance. Users of the facility (and hours used) over the past year were: NASA GSFC (261), Aeroflex (244.25), Sandia National Laboratory (155), SEAKR (147), International Rectifier (133.25), Honeywell (125.5), Intersil (115), NASA JPL (109.5), Microsemi (104), NAVSEA (90), BAE Systems (87), Hirex - France (74.5), Boeing Satellite Systems (70.5), Johns Hopkins APL (62.5), Intel Corp (57), Texas Instruments (47), TRAD - France (44), Northrop Grumman (39), Utah State University (32.5), InnoFlight (30), Air Force (29.5), Vanderbilt University (29.2), ICs LLC (24), University of Maryland (24), Southwest Research Institute (23), 3D Plus (16), Amtec (16), Fuji Electric Japan (16), INTA - Spain (16), Lockheed Martin (16), Maxwell (16), Peregrine (16), Silicon Space Technology (16), General Dynamics (15.5), SEMICOA (14), SunTronics (13), VPT Inc (12), ARQ - Spain (10.5), Ball Aerospace (8), JAXA - Japan (8), L-3 Communications (8), Montana State University (8), T2 Research (8) and Thales Alenia (8). New users included Utah State University, InnoFlight, INTA, ARQ and T2 Research.

Table I compares the facility usage by commercial and government customers. The ratio from

Table I. Radiation Effects Facility usage by commercial and government customers for this and previous reporting years.

| Reporting Year | Total Hours | Commercial Hours (%) | Government Hours (%) |
|----------------|-------------|----------------------|----------------------|
| 2013-2014 | 2,399 | 1,517 (63%) | 882 (37%) |
| 2012-2013 | 2,626 | 1,856 (71%) | 770 (29%) |
| 2011-2012 | 2,673 | 1,630 (61%) | 1,043 (39%) |
| 2010-2011 | 3,042 | 1,922 (63%) | 1,121 (37%) |
| 2009-2010 | 2,551 | 1,692 (66%) | 859 (34%) |
| 2008-2009 | 2,600 | 1,828 (70%) | 772 (30%) |
| 2007-2008 | 2,373 | 1,482 (62%) | 891 (38%) |
| 2006-2007 | 2,498 | 1,608 (64%) | 890 (36%) |
| 2005-2006 | 2,314 | 1,314 (57%) | 1,000 (43%) |
| 2004-2005 | 2,012 | 1,421 (71%) | 591 (29%) |
| 2003-2004 | 1,474 | 785 (53%) | 689 (47%) |
| 2002-2003 | 1,851 | 1,242 (67%) | 609 (33%) |
| 2001-2002 | 1,327 | 757 (57%) | 570 (43%) |
| 2000-2001 | 1,500 | 941 (63%) | 559 (37%) |
| 1999-2000 | 548 | 418 (76%) | 131 (24%) |
| 1998-1999 | 389 | 171 (44%) | 218 (56%) |
| 1997-1998 | 434 | 210 (48%) | 224 (52%) |
| 1996-1997 | 560 | 276 (49%) | 284 (51%) |
| 1995-1996 | 141 | 58 (41%) | 83 (59%) |

this reporting year (63% to 37%) is similar to the trend seen in previous reporting periods and commercial hours still dominate (see Fig. 1). Commercial hours decreased by 18% and government hours increased by 15% over hours from 2012-2013. 15 MeV/u ions were the most utilized and especially 15 MeV/u Au. A new beam of 24.8 A MeV ^{107}Ag was added to SEELine users list. Much of the testing conducted at the facility continues to be for defense systems by both government and commercial agencies. It is expected that the facility will continue to be as active in future years. Almost 13% (193 hours) of the commercial hours were from foreign agencies from France, Japan and Spain.

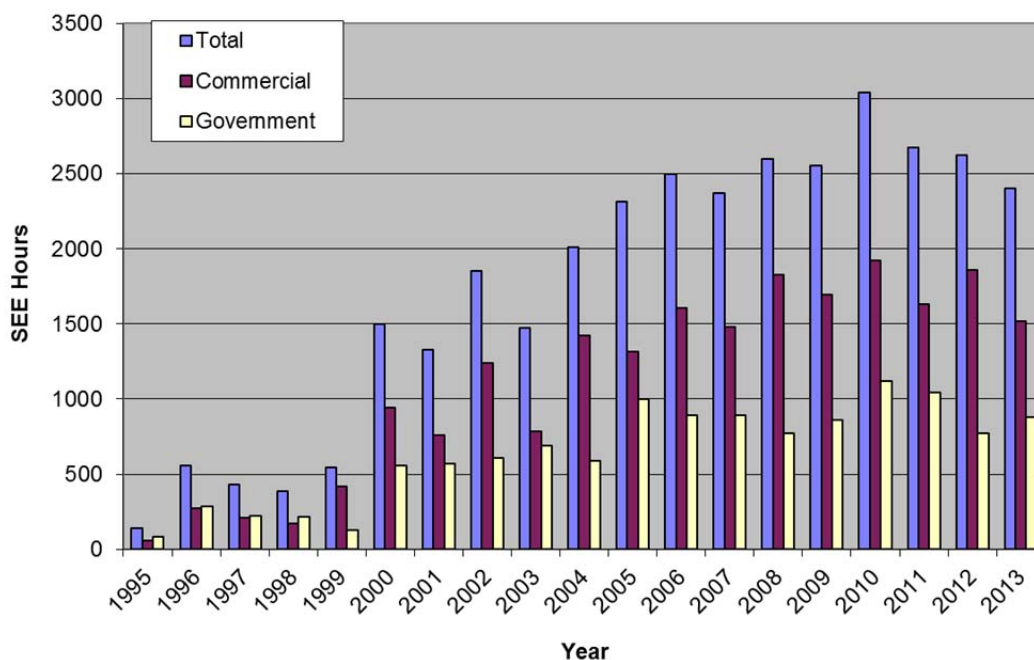


FIG. 1. Radiation Effects Facility usage by commercial and government customers for this and previous reporting years. The ratio from this reporting year (63% to 37%) is similar to the trends seen in previous reporting periods where commercial hours still dominate. About 13% (193 hours) of the commercial hours were from foreign agencies from France, Japan and Spain.