

Texas A&M cyclotron radiation effects facility
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The activity of the Radiation Effects Facility (REF) increased over the previous reporting year. In this reporting period, the facility was used for 3,042 hours, which is a ~1% increase over the 3,024 hours used in the 2014-2015 reporting period and tied highest usage year ever (3,042 in reporting year 2010-2011). Users of the facility (and hours used) over the past year were: Ryoei-Japan (265.5), Sandia National Lab (226), SEAKR (206.5), Honeywell (171), Cobham (168.5), Northrop Grumman (163.5), BAE Systems (151), NASA GSFC (149), Lockheed Martin (148), International Rectifier (141.5), NASA JPL (135.5), Intersil (100.5), NASA LRC (88), Boeing Corporation (81.25), Ball Aerospace (72.75), Thales Alenia-France (71), NAVSEA (56), VPT Inc (56), HIREX-France (54), Texas Instruments (48), L-3 Communications (34), Harris Corporation (33), Defense Threat Reduction Agency (32), Airbus-France (32), KAIST-Korea (32), Johns Hopkins (29.5), Scientic (25.5), General Dynamics (24), JAXA-Japan (24), Microsemi (24), TRAD-France (24), Ensign-Bickford (20), Freebird (16), IRCOS (16), Teledyne DALSA-France (16), ATMEL-France (15), IMT-Italy (14.5), Radiation Group (13), Data Device Corp (12), DSO-Singapore (10.5), Orbital ATK (9.5), Applied Nanotech (8), Custom Test Systems (8), Millennium Space (8), and T2 Research (8). New users included KAIST-Korea, Ensign-Bickford, Freebird, Teledyne DALSA-France, Radiation Group, Applied Nanotech, Custom Test

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 (%)
2015-2016	3,042	2,326 (76%)	716 (24%)
2014-2015	3,024	1,975 (65%)	1,049 (35%)
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%)

Systems, and Millennium Space.

Table I compares the facility usage by commercial and government customers. While commercial hours still dominate, the ratio from this reporting year (76% to 24%) is the lowest in government usage year since the 1999-2000 reporting period (see Fig. 1). Commercial hours increased by 18% and government hours decreased by 32% over hours from 2014-2015. This is largely due to the steady increase in foreign usage of the facility. 15 MeV/u ions were the most utilized and especially 15 MeV/u Au. No new beams were 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. Almost 25% (559 hours) of the commercial hours were for foreign agencies from France, Italy, Korea, and Singapore. It is expected that the facility will continue to be as active in future years.

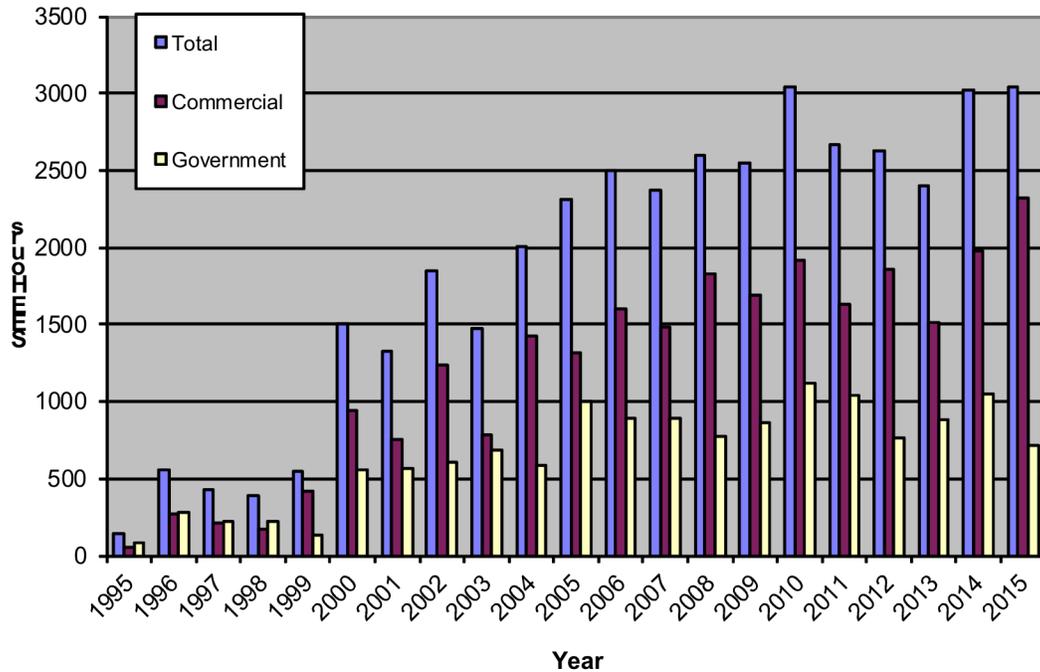


FIG. 1. Radiation Effects Facility usage by commercial and government customers for this and previous reporting years. While commercial hours still dominate, the ratio from this reporting year (76% to 24%) is the lowest in government usage year since the 1999-2000 reporting period. Almost 25% (559 hours) of the commercial hours were for foreign agencies from France, Italy, Korea, and Singapore.