SARSAT Beacon Manufacturer's Workshop
September 28, 2012

False Alert Statistics
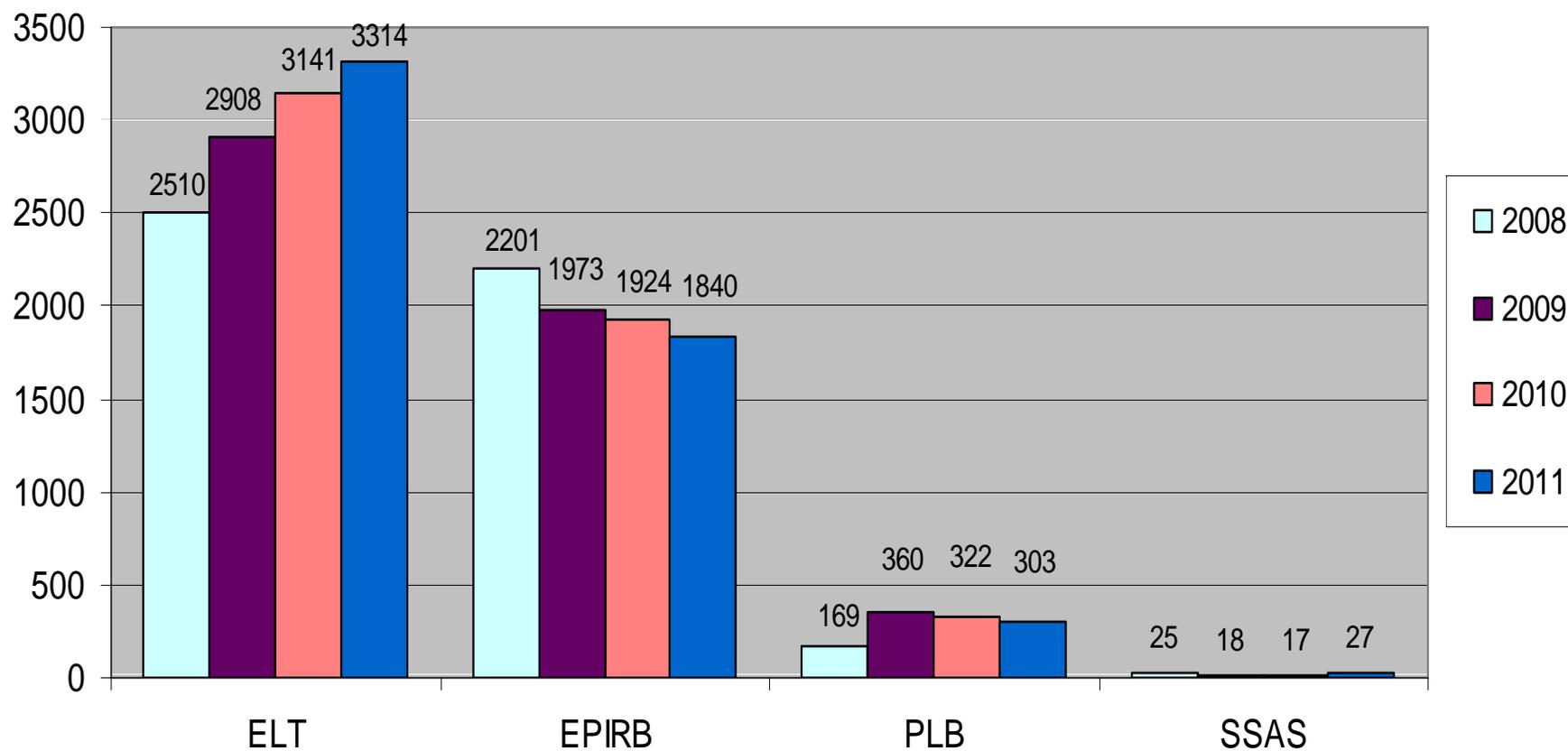
Prepared by:

Sam Baker/SSAI

Non-Distress Beacon Counts 2011

False Alerts By Beacon Registration Type

Legend: 2008, 2009, 2010, 2011

Type	2008	2009	2010	2011
ELT	2510	2908	3141	3314
EPIRB	2201	1973	1924	1840
PLB	169	360	322	303
SSAS	25	18	17	27

Beacon False Alert Rate for 2011

Based on Estimated Beacon Population

EPIRB	1.07 %
ELT	5.96 %
PLB	.72 %
SSAS	10.04 %

False Alert Rate By Beacon Type vs Registrations By Beacon Type

ELTs

	2008	2009	2010	2011
False Alerts	53%	56%	53%	54%
Actual Registrations	13%	16%	17%	17%

EPIRBs

	2008	2009	2010	2011
False Alerts	43%	36%	29%	26%
Actual Registrations	68%	62%	58%	55%

PLBs

	2008	2009	2010	2011
False Alerts	4%	8%	18%	20%
Actual Registrations	19%	22%	25%	28%

False Alert Rate =False Alerts/Beacon Population by Manufacturer and Model

Beacon Type	Model Number	2004	2005	2006	2007	2008	2009	2010	2011
ELT	Model 74						28.05%	27.07%	30.13%
ELT	Model 53			14.50%	16.80%	7.06%	6.08%	7.31%	10.03%
ELT	Model 88								10.00%
ELT	Model 61				16.45%	7.84%	6.82%	8.50%	9.18%
ELT	Model 77						2.90%	6.36%	7.88%
ELT	Model 78						18.68%	14.43%	6.47%
ELT	Model 87								5.91%
ELT	Model 3	13.83%	7.05%	7.74%	7.08%	6.73%	5.55%	5.04%	5.05%
ELT	Model 76						4.58%	5.34%	4.83%
ELT	Model 65				3.33%	3.55%	3.81%	3.66%	4.56%
ELT	Model 31		6.19%	10.10%	7.36%	4.91%	11.00%	8.16%	4.51%
ELT	Model 1	33.93%	12.93%	13.00%	11.89%	9.50%	7.91%	5.11%	4.07%
ELT	Model 69					5.08%	5.34%	3.96%	3.90%
ELT	Model 30		8.14%	11.14%		4.95%	3.20%	3.91%	3.85%
ELT	Model 2	17.65%	7.47%	7.08%	8.86%	6.14%	4.01%	5.77%	3.64%
EPIRB	Model 13	1.86%	3.92%	3.08%	2.71%	3.82%	3.33%	2.52%	3.60%
ELT	Model 68					3.91%	6.13%	4.73%	3.35%
ELT	Model 55			0.00%	0.42%	1.77%	2.71%	2.69%	3.30%
ELT	Model 39		0.55%	0.45%	0.49%	0.40%	0.48%	1.25%	3.05%
ELT	Model 75						4.65%	3.81%	2.87%
ELT	Model 54			1.04%	0.05%	0.51%	1.44%	1.64%	2.38%
ELT	Model 51			11.00%	3.48%	3.40%	2.93%	2.36%	2.28%
EPIRB	Model 10	2.13%	3.52%	1.74%	1.74%	1.44%	1.65%	1.81%	1.98%
ELT	Model 70					0.00%	4.16%	4.23%	1.88%

False Alert Rate =False Alerts/Beacon Population by Manufacturer and Model

Beacon Type	Model Number	2004	2005	2006	2007	2008	2009	2010	2011
ELT	Model 74						28.05%	27.07%	30.13%
ELT	Model 53			14.50%	16.80%	7.06%	6.08%	7.31%	10.03%
ELT	Model 88								10.00%
ELT	Model 61				16.45%	7.84%	6.82%	8.50%	9.18%
ELT	Model 77						2.90%	6.36%	7.88%
ELT	Model 78						18.68%	14.43%	6.47%
ELT	Model 87								5.91%
ELT	Model 3	13.83%	7.05%	7.74%	7.08%	6.73%	5.55%	5.04%	5.05%
ELT	Model 76						4.58%	5.34%	4.83%
ELT	Model 65				3.33%	3.55%	3.81%	3.66%	4.56%
ELT	Model 31		6.19%	10.10%	7.36%	4.91%	11.00%	8.16%	4.51%
ELT	Model 1	33.93%	12.93%	13.00%	11.89%	9.50%	7.91%	5.11%	4.07%
ELT	Model 69					5.08%	5.34%	3.96%	3.90%
ELT	Model 30		8.14%	11.14%		4.95%	3.20%	3.91%	3.85%
ELT	Model 2	17.65%	7.47%	7.08%	8.86%	6.14%	4.01%	5.77%	3.64%
EPIRB	Model 13	1.86%	3.92%	3.08%	2.71%	3.82%	3.33%	2.52%	3.60%
ELT	Model 68					3.91%	6.13%	4.73%	3.35%
ELT	Model 55			0.00%	0.42%	1.77%	2.71%	2.69%	3.30%
ELT	Model 39		0.55%	0.45%	0.49%	0.40%	0.48%	1.25%	3.05%
ELT	Model 75						4.65%	3.81%	2.87%
ELT	Model 54			1.04%	0.05%	0.51%	1.44%	1.64%	2.38%
ELT	Model 51			11.00%	3.48%	3.40%	2.93%	2.36%	2.28%
EPIRB	Model 10	2.13%	3.52%	1.74%	1.74%	1.44%	1.65%	1.81%	1.98%
ELT	Model 70					0.00%	4.16%	4.23%	1.88%
EPIRB	Model 27	0.59%	1.25%	1.36%	1.53%	1.09%	1.38%	1.21%	1.54%
EPIRB	Model 6	2.89%	4.70%	2.51%	2.07%	3.49%	1.74%	1.89%	1.45%
PLB	Model 42		0.51%	0.40%	1.40%	1.12%	0.95%	1.93%	1.42%
EPIRB	Model 79						0.99%	0.81%	1.35%
EPIRB	Model 33		2.10%	2.53%	2.45%	1.29%	1.44%	1.41%	1.26%
EPIRB	Model 64				0.26%	1.50%	1.46%	1.28%	1.25%
EPIRB	Model 24	0.70%	2.40%	0.96%	0.71%	1.23%	2.00%	0.74%	1.24%
ELT	Model 4	7.18%	5.21%	3.02%	3.42%	2.73%	3.02%	1.90%	1.21%
EPIRB	Model 43		0.47%	1.42%	1.29%	0.43%	0.00%	0.78%	1.18%
EPIRB	Model 19	1.26%	1.40%	1.22%	1.13%	1.45%	1.14%	1.19%	1.14%
EPIRB	Model 5	4.53%	4.04%	2.95%	2.68%	2.01%	1.53%	1.68%	1.10%
EPIRB	Model 26	0.67%	1.81%	1.36%	1.51%	2.10%	2.07%	2.06%	0.99%
EPIRB	Model 91								0.99%
EPIRB	Model 7	2.83%	2.50%	1.79%	1.97%	1.60%	1.37%	1.20%	0.96%
EPIRB	Model 32		2.15%	2.15%	1.49%	0.89%	0.90%	0.88%	0.89%
EPIRB	Model 14	1.64%	0.00%	1.64%	0.00%	1.69%	0.00%	0.00%	0.85%
PLB	Model 92								0.81%
EPIRB	Model 36		1.14%	0.54%	2.52%	2.50%	0.76%	0.39%	0.76%
EPIRB	Model 15	1.45%	1.36%	1.65%	1.08%	1.11%	1.13%	0.74%	0.75%
EPIRB	Model 11		1.95%	1.29%	0.96%	0.86%	0.91%	1.17%	0.71%
EPIRB	Model 20	1.25%	1.00%	0.76%	0.70%	0.76%	0.78%	0.79%	0.71%
EPIRB	Model 17	1.40%	1.25%	1.60%	0.79%	0.65%	0.79%	0.65%	0.66%
EPIRB	Model 21	1.21%	0.00%	1.22%	0.60%	1.22%	2.48%	0.61%	0.62%
PLB	Model 46		0.32%	0.31%	0.35%	0.18%	0.83%	0.76%	0.60%

Beacon Type	Model Number	2004	2005	2006	2007	2008	2009	2010	2011
EPIRB	Model 60				0.31%	0.42%	0.62%	0.56%	0.55%
EPIRB	Model 9	2.32%	3.38%	0.78%	1.03%	0.53%	1.08%	0.53%	0.54%
EPIRB	Model 34		1.50%	1.55%	1.06%	1.32%	1.11%	0.74%	0.51%
EPIRB	Model 90								0.50%
EPIRB	Model 18	1.37%	1.09%	1.00%	0.36%	1.10%	0.16%	0.67%	0.49%
EPIRB	Model 28	0.53%	0.98%	0.48%	0.59%	0.64%	0.57%	0.41%	0.49%
EPIRB	Model 16		1.91%	1.11%	0.44%	0.42%	0.59%	0.34%	0.44%
ELT	Model 52			0.68%	0.16%	0.27%	0.23%	0.40%	0.42%
PLB	Model 12	1.96%	0.49%	1.25%	1.18%	0.20%	0.43%	0.24%	0.42%
EPIRB	Model 82							0.51%	0.41%
EPIRB	Model 25	0.67%	0.30%	0.30%	0.97%	0.62%	0.47%	0.23%	0.39%
EPIRB	Model 66					0.00%	0.08%	0.30%	0.38%
PLB	Model 81						0.10%	0.60%	0.36%
PLB	Model 58				0.28%	0.13%	0.58%	0.42%	0.34%
EPIRB	Model 8	2.44%	2.90%	1.67%	1.71%	1.35%	1.32%	0.71%	0.30%
PLB	Model 72					0.00%	0.00%	0.60%	0.26%
PLB	Model 85							0.55%	0.26%
EPIRB	Model 23	0.95%	1.67%	0.36%	0.47%	0.37%	0.25%	0.49%	0.25%
ELT	Model 48		0.11%	0.00%	0.12%	0.24%	0.51%	0.38%	0.25%
EPIRB	Model 89								0.22%
PLB	Model 47		0.14%	0.00%	0.09%	0.05%	0.00%	0.10%	0.20%
ELT	Model 40		0.54%	0.38%	0.24%	0.13%	0.14%	0.14%	0.15%
ELT	Model 50			0.12%	0.27%	0.39%	0.35%	0.12%	0.15%
PLB	Model 71					0.00%	0.10%	0.49%	0.14%
EPIRB	Model 37		0.96%	1.13%	1.03%	0.53%	1.14%	0.20%	0.13%
PLB	Model 41		0.51%	0.23%	0.55%	0.26%	0.42%	0.25%	0.12%
EPIRB	Model 22	0.96%	1.61%	1.07%	0.42%	0.22%	0.45%	0.22%	0.11%
PLB	Model 80						0.14%	0.12%	0.09%
EPIRB	Model 29	0.18%	0.10%	0.11%	0.10%	0.07%	0.10%	0.07%	0.08%
PLB	Model 86							0.72%	0.06%
EPIRB	Model 44		0.45%	0.90%	0.00%	0.00%	0.00%	0.47%	0.00%
EPIRB	Model 59				0.00%	1.47%	0.00%	0.00%	0.00%
ELT	Model 67				0.00%	0.46%	0.00%	0.00%	0.00%
EPIRB	Model 38		0.75%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
EPIRB	Model 49		0.00%	0.18%	0.00%	0.00%	0.00%	0.00%	0.00%
EPIRB	Model 83							0.00%	0.00%
EPIRB	Model 62				0.00%	0.00%	0.12%	0.00%	0.00%
PLB	Model 63				0.00%	0.05%	0.05%	0.09%	0.00%
PLB	Model 56			0.00%	0.00%	0.37%	0.00%	0.00%	0.00%
PLB	Model 45		0.41%	1.31%	0.00%	0.00%	0.00%	0.00%	0.00%
PLB	Model 57			0.00%	0.60%	0.38%	0.00%	0.82%	0.00%
PLB	Model 35		1.20%	0.65%	0.00%	0.00%	0.00%	0.00%	0.00%
EPIRB	Model 84							0.00%	0.00%
EPIRB/ELT	Model 16	1.44%							
EPIRB/PLB	Model 11	2.11%							

False Alert Outreach Highlights

- SARSAT exhibited at the Aviation Week Maintenance, Repair and Overhaul (MRO) Americas Conference, April 3 - 5 in Dallas, TX
  - 7,745 registered attendees, 700 organizations exhibited
  - SARSAT objectives were to contact people and organizations that might be in a position to:
    - Help reduce ELT false alerts caused by mishandling, maintenance and testing
    - Assist in reminding ELT owners of their beacon registration obligations.

SSgt Mendiola, USAF, and Sam Baker, SSAI, staff the SARSAT booth at Aviation MRO Conf

Contact Information

SARSAT Program Office
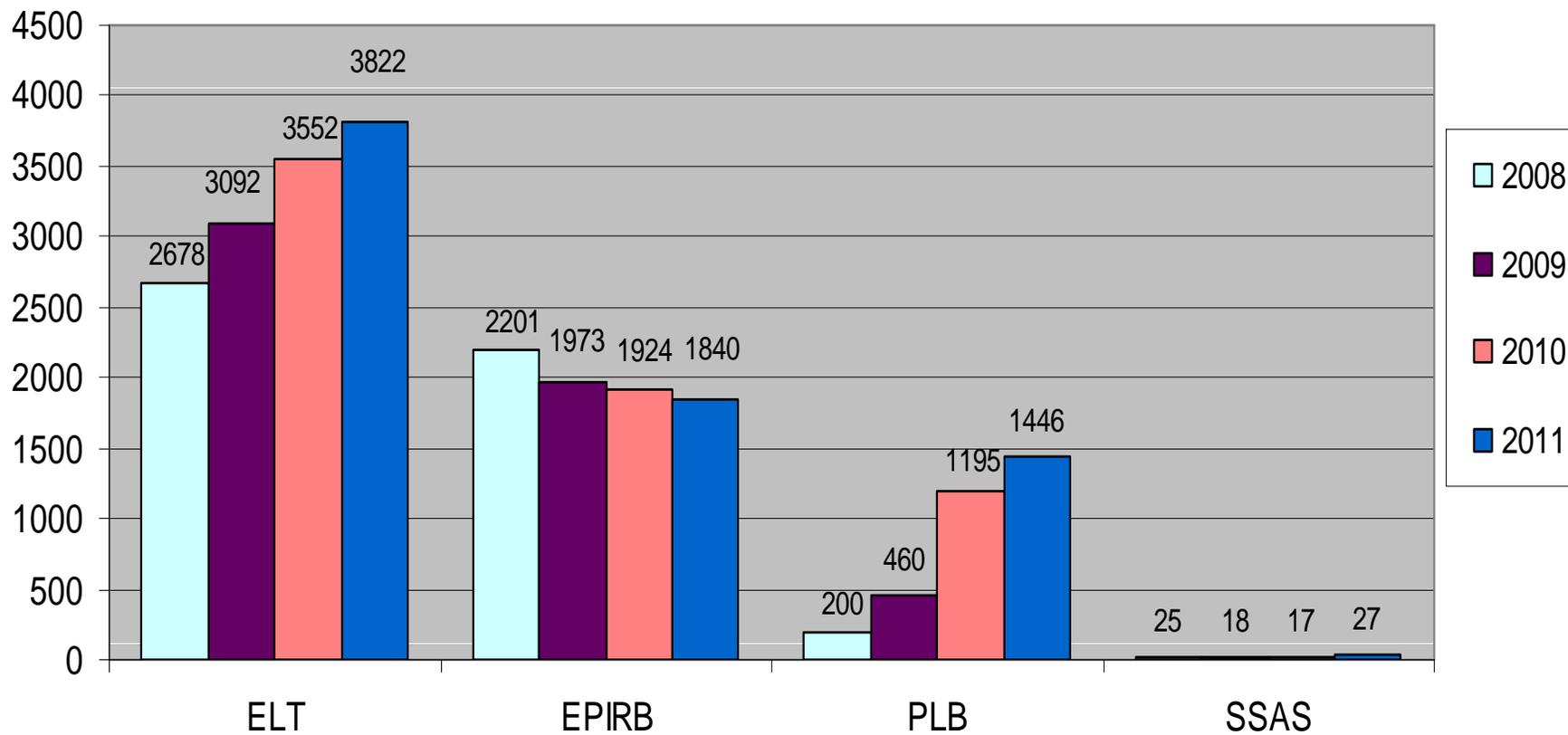**NOAA Satellite Ops Facility**
Suitland, MD 20746

www.sarsat.noaa.gov

Sam Baker
301-817-4530
Sam.Baker@noaa.gov

Non-Distress Beacon Counts 2011

False Alerts By Beacon Registration Type
(including JSETs beacons)

Legend: 2008, 2009, 2010, 2011

Beacon Type	2008	2009	2010	2011
ELT	2678	3092	3552	3822
EPIRB	2201	1973	1924	1840
PLB	200	460	1195	1446
SSAS	25	18	17	27

Non-Distress Beacon Counts 2011

JSETs Non-Distress Alerts

Legend:
- 2008
- 2009
- 2010
- 2011

ELT: 168 (2008), 184 (2009), 411 (2010), 508 (2011)

PLB: 31 (2008), 100 (2009), 873 (2010), 1143 (2011)