PRELIMINARY RESULTS OF 2017 BEACON MANUFACTURERS SURVEY

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Preliminary Results of 2017 Survey of Beacon Manufacturers
2017 Survey Highlights

• Conducted by the Cospas-Sarsat Secretariat since 1991, annually

• 45 beacon manufacturers participated in the survey

• Geographical distribution of participating manufacturers:
  - Europe: 41%
  - USA and Canada: 28%
  - Asia and Australia: 31%
2017 Survey Highlights

- In 2016, **about 201,500** beacons were produced worldwide, the annual production has increased by **2.3 %** over 2015

- In 2015, **197,000** beacons were produced (+ 4.5% over 2014)
- In 2014, **188,500** beacons were produced (+ 20.7% over 2013)
- In 2013, **156,000** beacons were produced (- 2.5% over 2012)
- In 2012: **160,000** beacons were produced (+ 2.2% over 2011)
Preliminary Results of 2017 Survey

~ **201,500** beacons were produced in 2016 worldwide, including:

- **About 96,000 EPIRBs** (decrease of annual production: **-1.9% against 2015**)
  - **annual production decrease in 2010 (- 38%), in 2011 (-6.7%), in 2012 (-3.5%), in 2013 (-0.6% against 2012)**

- **Over 22,000 ELTs** (decrease in annual production: **-9% against 2015**)
  - **annual production decrease: in 2006 (-10%), 2010 (-20%), in 2011 (- 9.2%) and in 2012 (-10%), and in 2015 (-3% against 2014)**

- **Over 83,000 PLBs** (annual increase: **+ 11.4% against 2015**)
  - **annual production decrease in 2010 (- 22%), in 2011 (-12.4%), in 2013 (-7.0%)**
Estimated Global Beacon Population

- **Over 1,790,000** beacons are estimated to be in use at the end of 2016
- **Annual increase in global beacon population**: ~ 6.9%
2017 Survey Highlights

- 5 manufacturers (11% of all respondents) reported ‘zero’ production in 2016,

- 16 manufacturers (36% of all respondents) produced 1 - 499 units,

- 24 manufacturers (53% of all respondents) had annual production of > 500 units.
Other 2017 Survey Results

46% of beacon manufacturers reported an increase in the annual production volumes in 2016 (42% in 2015).

In 2016-17, three new beacon manufacturers informed Cospas-Sarsat of their plans to develop and type approve new models.
Location Protocol Beacons

- in 2016, about 150,000 LP-beacons were produced, including:
  - ELTs: approximately 11,000 (or 7% of LP-beacons of all types),
  - EPIRBs: about 56,000 (38% of LP-beacons of all types),
  - PLBs: about 82,000 (55% of LP-beacons of all types).

- In 2016: an estimated over 1,123,000 LP-beacons were deployed worldwide (63% of 406 MHz beacons global population).
Location Protocol Beacons
Production Trends in 2004 - 2016

<table>
<thead>
<tr>
<th>Year</th>
<th>% of LP-ELT</th>
<th>% of LP-EPIRBs</th>
<th>% of LP-PLBs</th>
<th>% of LP (all types)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>16.1%</td>
<td>4.3%</td>
<td>16.3%</td>
<td>9.6%</td>
</tr>
<tr>
<td>2008</td>
<td>15.9%</td>
<td>22.5%</td>
<td>79.1%</td>
<td>41.3%</td>
</tr>
<tr>
<td>2012</td>
<td>30.4%</td>
<td>35.7%</td>
<td>97.1%</td>
<td>61.4%</td>
</tr>
<tr>
<td>2014</td>
<td>36.4%</td>
<td>51.3%</td>
<td>96.7%</td>
<td>66.7%</td>
</tr>
<tr>
<td>2016</td>
<td>50.1%</td>
<td>58.8%</td>
<td>98.7%</td>
<td>74.1%</td>
</tr>
</tbody>
</table>
Manufacturers’ Plans for 2017

• **223,000** beacons to be produced **in 2017** (+ 11% over actual production in 2016), including:

  » EPIRBs: 101,000
  » ELTs: 25,000
  » PLBs: 97,000

• In **2017**, an estimated global population of 406 MHz beacons could reach **1,883,000** (annual growth of +5%)
Accuracy of Manufacturers Forecasts (all beacon types annual production)

<table>
<thead>
<tr>
<th>Beacon type</th>
<th>Manufacturers’ Forecast for 2016</th>
<th>Actual Production in 2016</th>
<th>Actual over Forecast Discrepancy, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>All beacon types</td>
<td>~219,000</td>
<td>~201,500</td>
<td>- 8%</td>
</tr>
</tbody>
</table>
In 2016, the Secretariat processed 164 type-approval submissions, including 27 Full TA reviews, 43 CHNs, 15 Administrative CHNs and 79 submissions related to Pre-application consultations.

In 2017, the Secretariat expects to receive 17 applications for type approval of new beacon models and 27 change notices from 12 beacon manufacturers.
For more information...

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Thank you!