

# 2018 Beacon Manufacturers Workshop

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## PRELIMINARY RESULTS OF 2018 BEACON MANUFACTURERS SURVEY

Andryey Zhitenev  
Cospas-Sarsat Secretariat



# Preliminary Results of 2018 Survey of Beacon Manufacturers

# 2018 Survey Highlights

- Conducted by the Cospas-Sarsat Secretariat since 1991, annually
- **45** beacon manufacturers participated in the survey
- Geographical distribution of participating manufacturers:
  - Europe: **37%**
  - USA and Canada: **24%**
  - Asia and Australia: **39%**

## Other 2018 Survey Results

42 % of beacon manufacturers reported increase in the annual production volumes in 2017 (46% in 2016)

in 2017-18, five new beacon manufacturers informed Cospas-Sarsat of their plans to develop and and seek type approval for their new beacon models

# 2018 Survey Highlights



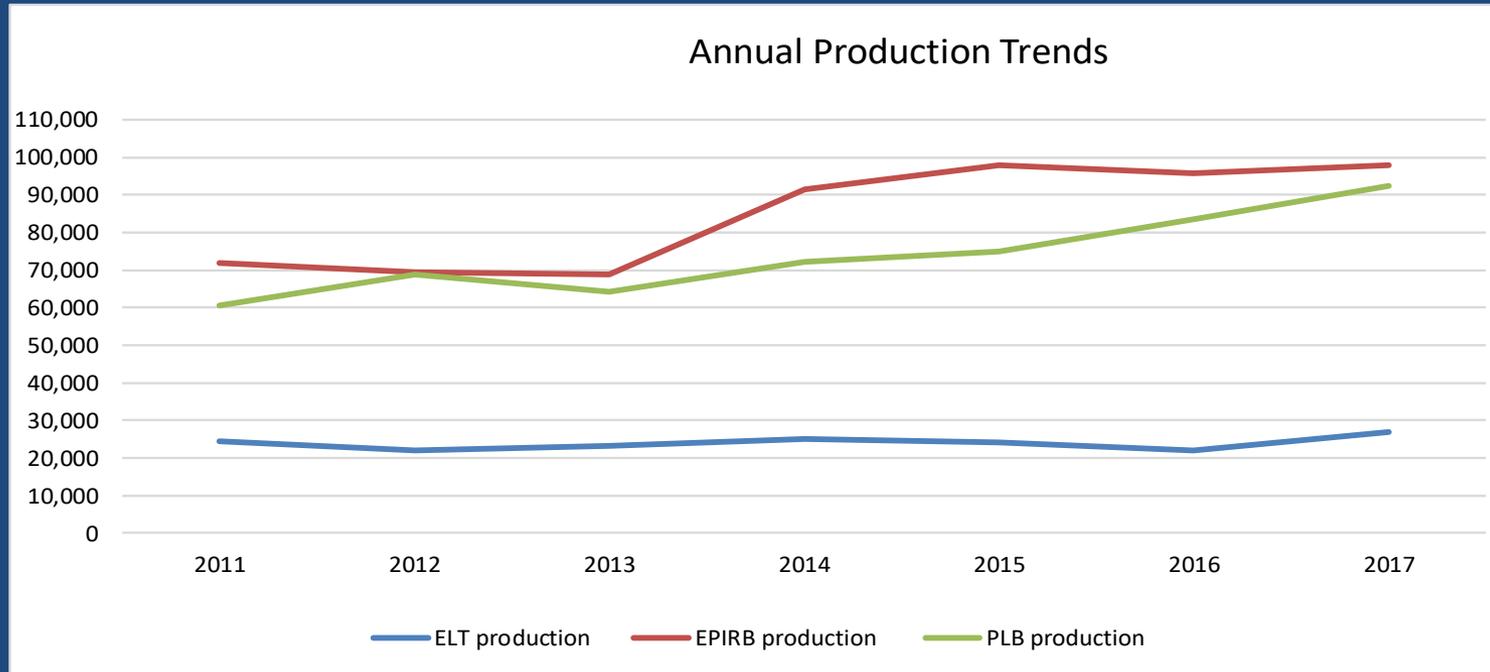
- 3 manufacturers (6.6 % of all respondents) reported 'zero' production in 2017,
- 16 manufacturers (35.6% of all respondents) produced 1 - 499 units;
- 26 manufacturers (58% of all respondents) had annual production of > 500 units.



# 2018 Survey Highlights



In 2017, about **218,000** beacons were produced worldwide



- In 2016, **201,000** beacons were produced (+ 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 2018 Survey

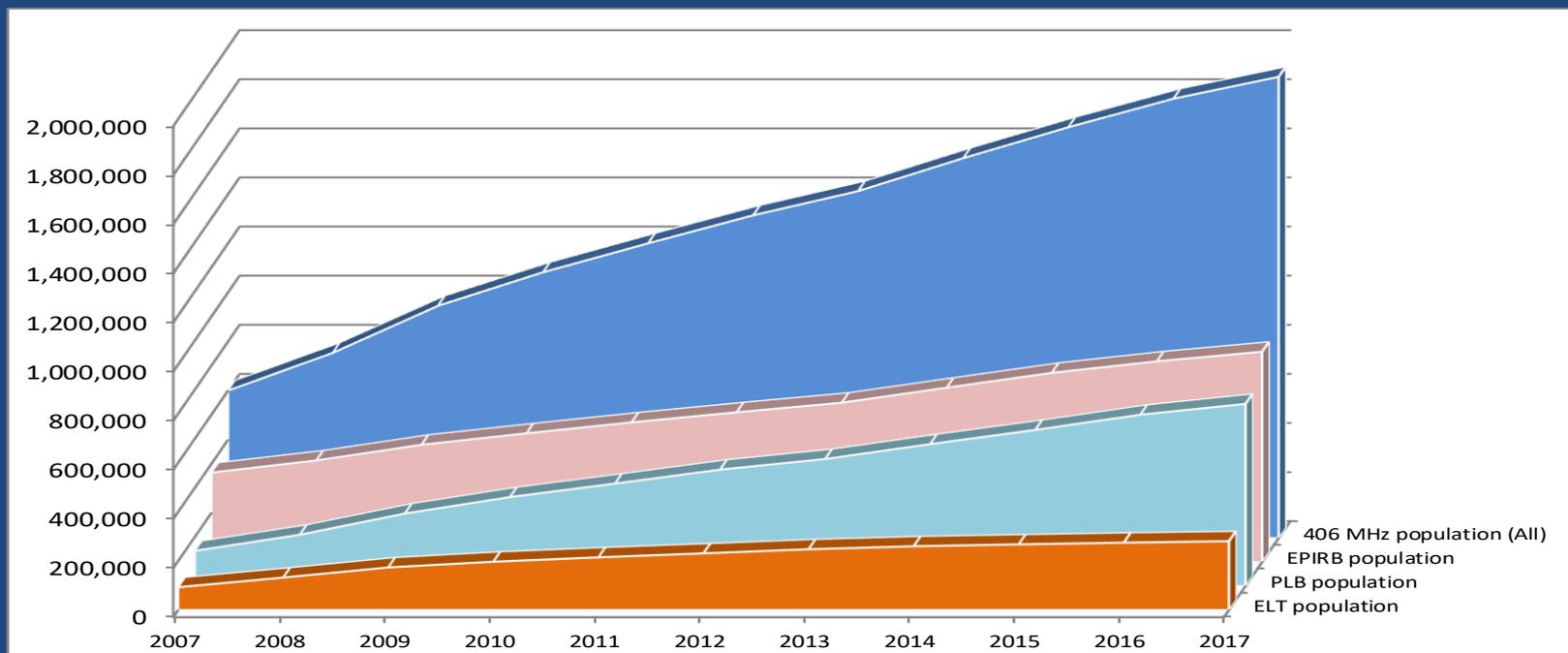
~ **about 218,000** beacons were produced in 2017 worldwide, including :

- About 98,500 **EPIRBs** (increase in annual production: *+2.8% against 2016*)
  - *annual production growth in 2003 – 2009, 2014-2015, and in 2017;*
  - *annual production decrease in 2010 (- 38%), in 2011 (-6.7%), in 2012 (-3.5%), in 2013 (-0.6% against 2012) , in 2016 (-1.9%)*
  
- About 27,000 **ELTs** (increase in annual production: *+22% against 2016*)
  - *annual production growth: in 2005 (+31 %), in 2007 – 2009, in 2013 – 2014;*
  - *annual production decrease: in 2006 (-10%), 2010 (-20%), in 2011 (- 9.2%) and in 2012 (-10%), in 2015 (-3%), and in 2016 (-9%);*
  
- About 92,500 **PLBs** (annual increase: *+10.7% against 2016*)
  - *annual production growth: in 2005 – 2009, in 2012, and in 2014-2016;*
  - *annual production decrease in 2010 (- 22%), in 2011 (-12.4%), in 2013 (-7.0%)*

# Estimated 2017 Global Beacon Population



- **About 1,879,000** beacons were in use at the end of **2017**
- Annual increase in global beacon population : **5%**



# Revision of the Current 10-year Beacon Life-Cycle Assumption

Beacon Type	Beacon life cycle (current CSS model), years	Median life cycle (survey 2018), years	Weighted* life cycle (survey 2018), years
EPIRB	10	8	9
PLB	10	8	7
ELT	10	10	16
ALL beacon types	10	10	9

- Weighted life span was calculated with the formula:  $\sum (L_i \times W_i) / \sum W_i$ , where:
  - $L_i$  is the life-span for a beacon type stated by the i-th beacon manufacturer, and
  - $W_i$  (weighting factor) is the 2017 production of a beacon type, as reported by the i-th beacon manufacturer.
- Re-calculation of the global beacon population by applying a “9-7-16-years” assumption to life cycles of EPIRBs, ELTs and PLBs would result in an estimated population of about 1,767,000 units, which is approximately 6% lower than the global beacon population estimated with a current “10-10-10”-years assumption.
- The Secretariat will continue collecting information about the anticipated life cycle of 406 MHz beacons in future surveys.

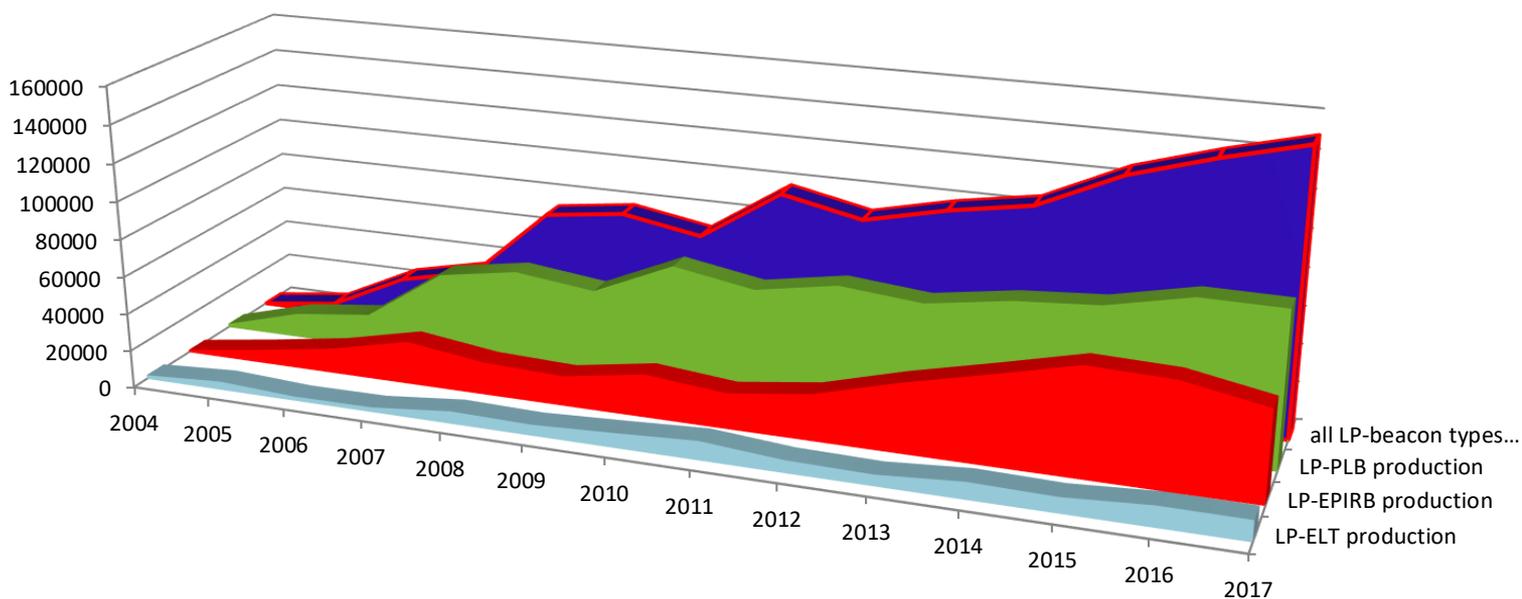
# Location Protocol Beacons

Beacon Type	Production of LP-beacons in 2017, units	Ratio of LP-beacons to all beacons produced in 2017, %	Ratio to all LP-beacons, %
EPIRBs	48,379	49%	34.2%
PLBs	82,264	89%	58.1%
ELTs	10,864	40.5%	7.7%
<b>All 406 MHz Beacon Types</b>	<b>141,507</b>	<b>64.9%</b>	<b>100%</b>

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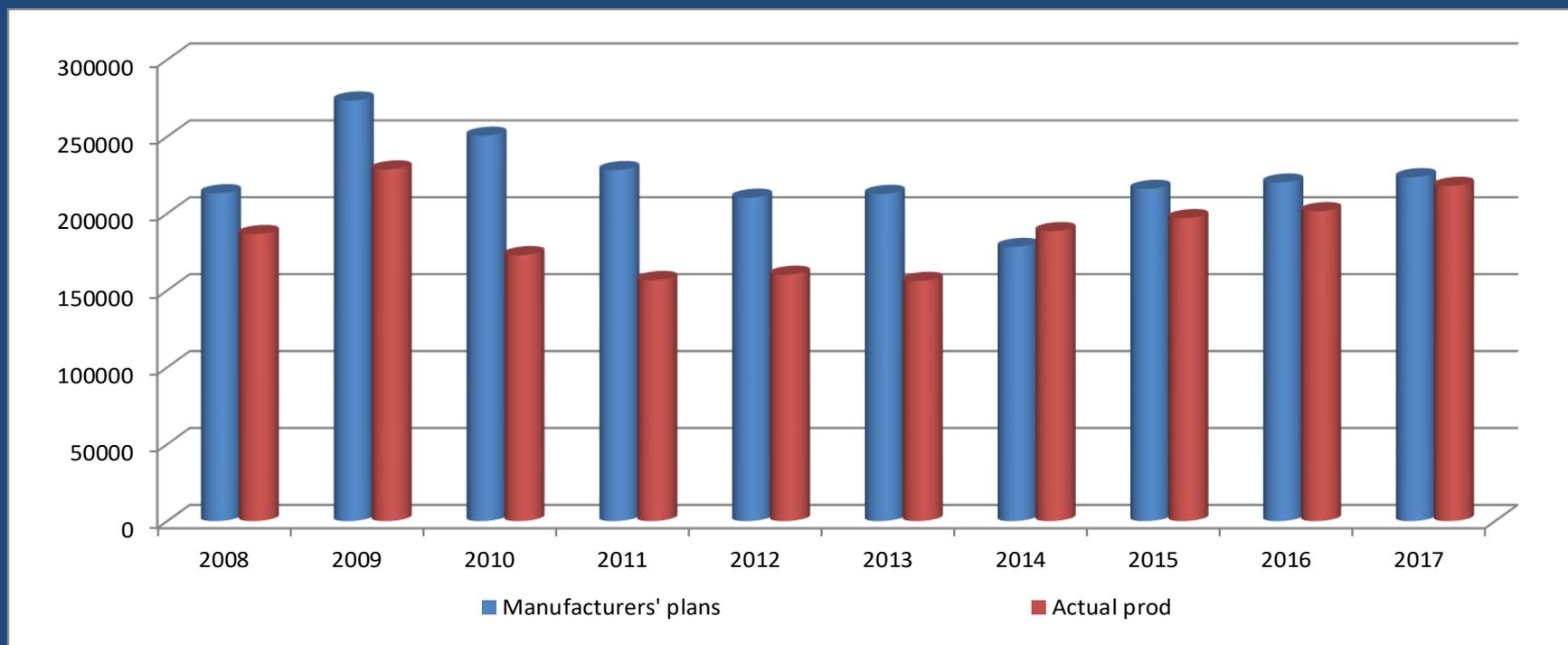
# Location Protocol Beacons Production Trends in 2004 - 2017



## Manufacturers' Plans for 2018

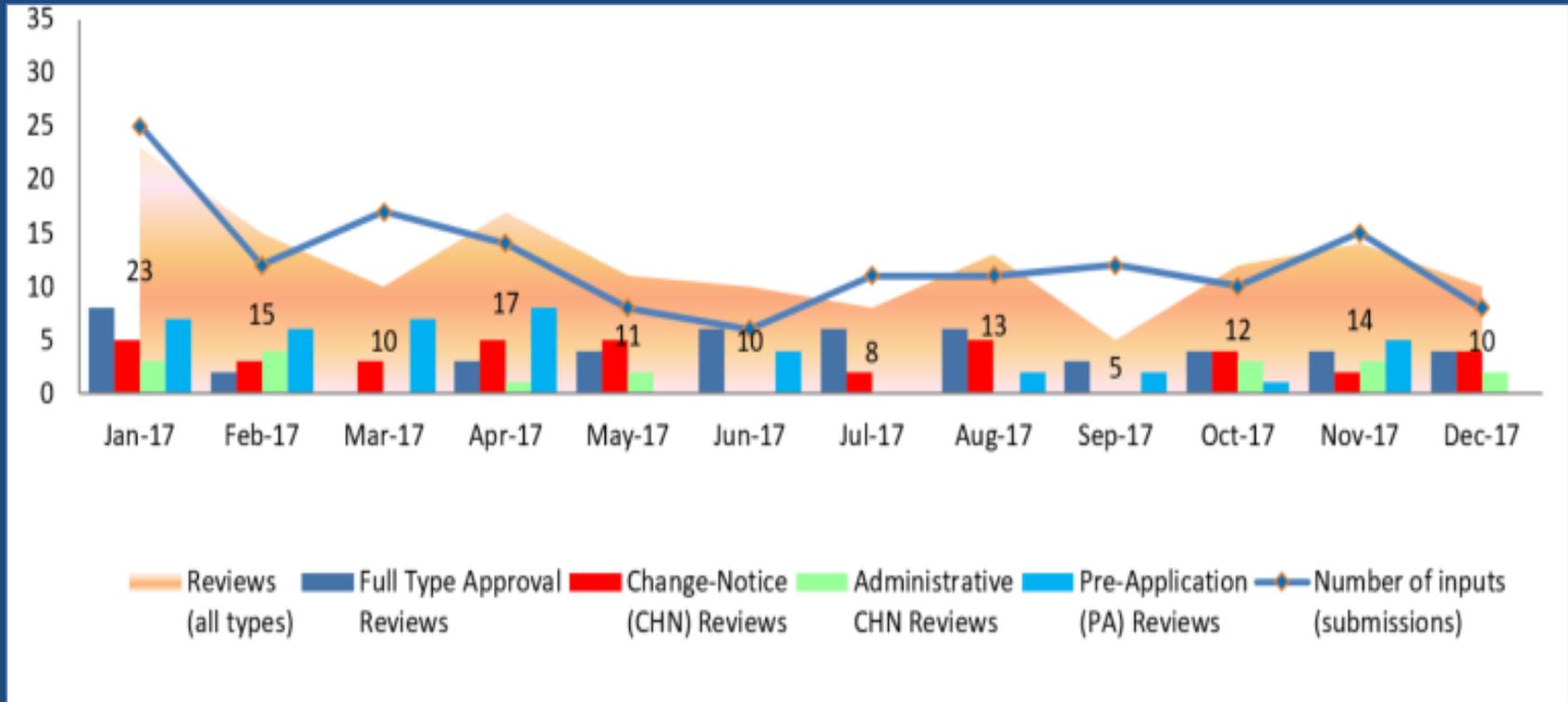
- **245,000** beacons to be produced in **2018** (+ 12.3 % over the actual global production volume in 2017), including:
  - 110,000 EPIRBs,
  - 28,000 ELTs,
  - 107,000 PLBs.
- In **2018**, estimated global population of 406 MHz beacons could reach **1,937,000**

# Accuracy of Manufacturers Forecasts (all beacon types annual production)



Beacon Type	Manufacturers' Forecast for 2017	Actual Production in 2018	Actual over Forecast Discrepancy, %
All beacon types	223,500	218,000	-2.5%

# Type Approval Activity in 2017



In 2017, the Secretariat performed 148 reviews of type-approval submissions, including:

- 50 reviews of full type-approval submissions,
- 38 reviews of change-notice submissions,
- 18 reviews of administrative change-notice submissions,
- 42 reviews of pre-application submissions.

## **For more information...**

***Cospas-Sarsat Programme  
Suite 4215  
Rene Levesque Blvrd  
Montreal, Quebec H3B 4W8  
Canada***

Phone: +1 514 500 7999

Fax: +1 514 500 7996

Website: [www.406.org](http://www.406.org)

E-mail: [mail@406.org](mailto:mail@406.org)

**Thank you !**