General Aviation and Part 135 Activity Survey: USHST Briefing

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GA and Part 135 Survey, Project Manager
Topics

• What is the GA Survey and what data are produced
• Why rotorcraft participation is critical
• How we reduce participant burden
• How we protect data confidentiality
• How the survey data are used
What survey data is available?

<table>
<thead>
<tr>
<th>Current Year Estimates</th>
<th>Cross-classifications</th>
<th>Trends &amp; Special Reports</th>
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<tbody>
<tr>
<td>Fleet size</td>
<td>Aircraft type</td>
<td>10-year trends</td>
</tr>
<tr>
<td>Flight hours</td>
<td>Region</td>
<td>Fleet size</td>
</tr>
<tr>
<td>Purpose of flight</td>
<td>Year of Manufacture</td>
<td>Hours flown</td>
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<tr>
<td>Fuel consumption</td>
<td>Primary use</td>
<td>Purpose of flight</td>
</tr>
<tr>
<td>Landings</td>
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<td>Make-model</td>
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<tr>
<td>Avionics</td>
<td></td>
<td>Air-cargo only</td>
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<td></td>
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<td>Targeted geographies and uses</td>
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</tbody>
</table>

The GA Survey is the primary source of data on the size, activity, and characteristics of the general aviation and part 135 fleets.
Why rotorcraft participation is critical

• Account for most activity in key mission areas—air medical, air tours, aerial observation. Plus, instructional (piston), air taxi

• Activity varies by type of rotorcraft
  ▪ Estimates for piston, 1- and multi-engine turbine
  ▪ Relatively small populations

• Since 2004, all rotorcraft are surveyed every year
Hours flown by use category (2015-2019)

**Part 135 Air Medical**

**Air Taxi**

**Air Tours**

**Aerial Observation**
Survey Response Rates, 2004-2019

GA Survey Response Rates, by Type of Aircraft (2004-2019)
How we reduce participant burden

• Use data from the FAA’s HAA survey
  ▪ Requires permission from the operator
  ▪ Only covers air medical

• Abbreviated form for fleets (8 questions, by major aircraft type)
  ▪ \( N \) aircraft, state, \textit{hours flown}, landings, fuel consumption, fractional ownership, public use, \textit{purpose/how flown} (e.g., air medical, air tours, instructional)

• Need help? Call us!
  ▪ 800-826-1797
  ▪ infoaviationsurvey@tetratech.com

\textit{Identifying fleets is critical to reduce burden. But sources available to group aircraft are limited.}
How we protect data confidentiality

- Data reports are highly-aggregated
  - Estimates are suppressed for small cell counts
- Data collected and stored on secure servers
  - Secure online surveys (SSL)
  - Paper surveys destroyed
  - Data access restricted to project analysts
  - Confidentiality statements required for project staff

_Individually-identifiable data are not shared with anyone, ever—not the FAA or any other organization._
Annual estimates published online by FAA

Survey years 1999 – 2019 available

<table>
<thead>
<tr>
<th>Rotorcraft</th>
<th>Aircraft Population Size</th>
<th>Estimated Number Active</th>
<th>Percent Standard Error</th>
<th>Estimated Percent Active</th>
<th>Percent Standard Error</th>
<th>Estimated Total Hours Flown</th>
<th>Percent Standard Error</th>
<th>Estimated Average Hours</th>
<th>Percent Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piston</td>
<td>4,089</td>
<td>3,089</td>
<td>0.8</td>
<td>75.6</td>
<td>0.8</td>
<td>627,925</td>
<td>2.7</td>
<td>203.3</td>
<td>2.0</td>
</tr>
<tr>
<td>1 Eng: Turbine</td>
<td>5,825</td>
<td>5,262</td>
<td>0.3</td>
<td>90.3</td>
<td>0.3</td>
<td>1,812,565</td>
<td>1.6</td>
<td>344.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Multi-Eng: Turbine</td>
<td>2,083</td>
<td>1,847</td>
<td>0.3</td>
<td>88.7</td>
<td>0.3</td>
<td>556,041</td>
<td>2.3</td>
<td>301.1</td>
<td>2.0</td>
</tr>
<tr>
<td>Turbine: Total</td>
<td>7,908</td>
<td>7,109</td>
<td>0.3</td>
<td>89.9</td>
<td>0.3</td>
<td>2,368,607</td>
<td>1.3</td>
<td>333.2</td>
<td>1.2</td>
</tr>
<tr>
<td>Rotorcraft: Total</td>
<td>11,997</td>
<td>10,199</td>
<td>0.5</td>
<td>85.0</td>
<td>0.5</td>
<td>2,996,531</td>
<td>1.3</td>
<td>293.8</td>
<td>1.1</td>
</tr>
</tbody>
</table>


(or search “FAA GA and Part 135 Survey”; often one of the first links)
How the survey data are used

- Calculate fatal accident rates (exposure)
- Forecasts of fleet size and activity
- Assess economic impact of aviation on local regional economies
- Anticipate demands on the National Airspace System infrastructure
- Understand impacts of policy (e.g., fuel types, avionics)
Questions?

Other resources:
Appendix A – Survey methodology
Appendix B – Data collection materials

Results published online (1999 to 2019):
https://www.faa.gov/data_research/aviation_data_statistics/general_aviation/