

Alaska Aviation Safety Program

FY2013 Request: \$2,500,000

Reference No: 52034

AP/AL: Allocation

Project Type: Life / Health / Safety

Category: Transportation

Location: Statewide

House District: Statewide (HD 1-40)

Impact House District: Statewide (HD 1-40)

Contact: Steven Hatter

Estimated Project Dates: 07/01/2012 - 06/30/2017

Contact Phone: (907)269-0730

Appropriation: Safety

Brief Summary and Statement of Need:

This project seeks to reduce aviation accidents, focusing on air charter operations in Alaska. Project sponsors developed a real-world software based pilot training product for use in aviation simulators to help pilots train in a real-world simulated environment. The advanced training program depicts terrain, faithfully depicts regional weather conditions, and evaluates a pilot's decision making ability. This request seeks to expand initial success to other air corridors identified by the air service industry.

Funding:	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	Total
Fed Rcpts	\$1,500,000						\$1,500,000
Gen Fund	\$1,000,000						\$1,000,000
Total:	\$2,500,000	\$0	\$0	\$0	\$0	\$0	\$2,500,000

<input type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input checked="" type="checkbox"/> On-Going
0% = Minimum State Match % Required		<input type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
Totals:	0	0

Additional Information / Prior Funding History:

FY2012 \$1,000,000 (GF) & \$2,000,000 (F); FY2011 \$750,000 (GF) & \$1,000,000 (F); FY2010 \$400,000 (GF) & \$400,000 (F). Prior funding received when this project was under DMVA management includes \$300,000 of in-kind assistance from NASA plus the following capital funds: FY2008 - \$500,000 (GF); FY2007 - \$500,000 (GF); FY2006 \$500,000 (GF) & \$1,500,000 (NASA); FY2005 - \$2,980,000 (NASA); FY2004 - \$3,000,000 (NASA); FY2001 - \$300,000 (NASA).

Project Description/Justification:

The Alaska Aviation Safety Project (AASP) is an on-going project in collaboration with the Federal Aviation Administration (FAA); National Institute of Occupational Safety & Health (NIOSH); National Aeronautics & Space Administration (NASA); and National Oceanic and Atmospheric Administration (NOAA). The purpose of this project is to save and preserve human life. Additional stakeholders include the tourism and aviation industries as well as the traveling public.

The aviation corridors to be mapped and subsequently developed into real-to-world terrain datasets for use in aviation simulators are the air corridors from Anchorage to Nome. Some of this data already exists such as Rainy Pass and can be utilized in developing the cue based training. However, much of the data does not exist and will have to be acquired and rendered into a 3D flyable dataset.

According to the National Institute of Occupational Safety & Health (NIOSH) there were 1,319 commuter and air taxi crashes (statistics exclude General Aviation) between 1990—2004 in the US of which 351 (27%) were fatal, resulting in 1,027 deaths. In contrast Alaska accounted for 473 (36%) of the total US air crashes resulting in 211 deaths (21% of all US deaths). Based upon statistics provided by NIOSH, commercial pilots in Alaska experience greater than four times the risk of fatality while working over a 30-year career than do their counterparts working in the Lower 48 over the same career span.

NTSB statistics reveal there were more than 1,186 aviation accidents in Alaska between the years 2000 and 2009. Of those accidents, 107 were deadly causing 236 human fatalities. On average 24 people a year lost their lives to fatal air crashes in Alaska during this time period. In other words, over the past 10 years from 2000 to 2009, on average one person has been killed in an aviation related accident every two weeks. This is unacceptable, and in the grim statistics of the value of human life lost, this represents \$472M in damages due to lost life and indirect effects upon family and society according to the FAA. In 2010 there were 10 fatal aircraft accidents accounting for 18 fatalities.

Some of the issues affecting these high rates of aviation fatalities are:

- Extreme terrain and weather;
- Continuation of flights into poor visibility, causing a loss of situational awareness whereby a perfectly functional airframe is flown into terrain (Controlled Flight Into Terrain [CFIT]);
- A data disparity that exists between Alaska and the continental US (CONUS) which inhibits technological parity with the CONUS that could prevent CFIT from occurring in Alaska (accurate elevation/terrain data);
- Inexperienced pilots unfamiliar with Alaska flying;
- Pilot turn-over, and
- The old culture of bush flying (always get through).

The weather & the terrain cannot be changed; however, piloting skills can be improved if pilots are provided with Cue-Based Training tools in order to educate new and veteran pilots to use better in-cockpit decision making skills while flying in Alaska and its extreme conditions. Many young pilots come to Alaska to gain and log flight time; when enough hours have been acquired, they move to larger more prestigious flying assignments with regional airlines elsewhere. This creates a turn-over of pilots resulting in an influx of inexperienced pilots flying in some of the world's most unforgiving flying conditions.

This project contributes to the Department's Mission by reducing injuries, fatalities and property damage and by improving the mobility of people and goods.