

## **The Human Startle Response and Managing Unexpected Events**

### **Outreach Guidance Document** **2015/03/06-018 (E) PP Rev 1**

This outreach guidance is provided to all FAA and aviation industry groups that are participating in outreach efforts sponsored by the General Aviation Joint Steering Committee (GAJSC). It is important that all outreach on a given topic is coordinated and is free of conflicts. Therefore, all outreach products should be in alignment with the outline and concepts listed below for this topic.

#### **Outreach Month: June 2017**

#### **Topic: The Human Startle Response and Managing Unexpected Events**

The FAA and industry will conduct a public education campaign that acquaints the public with the human startle response and discusses best practices regarding single-pilot CRM operational techniques. One aspect of CRM addresses management of unexpected events. Humans are subject to a “startle response” when they are faced with unexpected emergency situations and may delay action or initiate inappropriate action in response to the emergency. Training and preparation can reduce startle response time and promote more effective and timely response to emergencies.

#### **Background:**

Fatal general aviation accidents often result from inappropriate responses to unexpected events. Loss of aircraft control is a common factor in accidents that would have been survivable if control had been maintained throughout the emergency. In some cases pilot skill and knowledge have not been sufficient developed to prepare for the emergency but in others it would seem that an initial inappropriate reaction began a chain of events that led to disaster. Humans are subject to a “startle response” when they are faced with unexpected emergency situations and may delay action or initiate inappropriate action in response to the emergency. Training and preparation can help pilots to manage the startle response and effectively cope with unexpected events.

#### **Teaching Points:**

- Unexpected events – especially those occurring close to the ground – require rapid appropriate action.
- Startle response can delay action or precipitate inappropriate action.
- Encourage pilots and CFIs to train and plan for emergencies.
  - Review and practice “what if” scenarios.
  - Vocalize takeoff, approach, and landing expectations.
    - Aircraft configuration, airspeed, altitude and route
    - Emergency options

**References:**

- **Managing Unexpected Events Power Point**  
Available on the National FAAS Team Share Point site under Approved Presentations.
- Aviation Risk Management Handbook (FAA-H-8083-2) – Chapter Five  
[http://www.faa.gov/regulations\\_policies/handbooks\\_manuals/aviation/media/FAA-H-8083-2.pdf](http://www.faa.gov/regulations_policies/handbooks_manuals/aviation/media/FAA-H-8083-2.pdf)

**IMPORTANT** – Once you have completed outreach on this topic, please help us track the outreach you have done by entering a PTRS record.

PTRS Activity Code	National Use	Primary Area	Keyword	Description	Performance Target	Date Due	LDR 12XXFAFAAST
2685	NPP14	K	032	Promote “Topic of the Month” within the FSDO area.	1 per FSDO, per Month, per FY	09/15/17	OR0010
<b>RESOURCES:</b>				<b>COMMENTS:</b>			
<ul style="list-style-type: none"> <li>• Topics of the Month materials are available at the <a href="#">National FAAS Team SharePoint site</a> under - Approved Presentations - Operations, Sub-Category GAJSC.</li> </ul>				<ul style="list-style-type: none"> <li>• GAJSC Topic of the Month:               <ul style="list-style-type: none"> <li>▪ Industry along with the FAAS Team will be promoting each topic nationally during the same month.</li> <li>▪ Use the “teaching points” on the Outreach Guidance Document to promote the topic locally in any way possible.</li> </ul> </li> </ul>			
<b>NOTES:</b>							
<ul style="list-style-type: none"> <li>• 1 PTRS entry at the conclusion of each GAJSC Topic of the Month outreach.</li> <li>• Record the type of outreach conducted in the comment section of the PTRS (provide link to the outreach that was developed, when possible).</li> <li>• When more than one of these NPP tasks is completed in a month, record the additional ones in PTRS using the indicated PTRS code but, <b>do not</b> enter “NPP14” in the “National Use” field.</li> </ul>							