Proposed Initiatives for the Aerospace & Electronic Systems Society

Ron Ogan 5May2014

Develop Tutorials for Technical Panels.

Currently, AESS has ten Technical Panels with varying degrees of activity level.

1) Gyro and Accelerometer Panel (GAP); 2) Radar Systems Panel; 3) Space Systems Panel; 4) Target Tracking Systems Panel; 5) Aerospace Systems Integration Engineering Technical Panel; 6) Aerospace Control & Guidance Systems; 7) Aerospace Workforce Panel, 8) Cyber Security Panel, 9) Unmanned Aerospace Vehicles Panel, and 10) Avionics Systems Panel.

In an effort to promote these technical panels and to have leading edge speakers at conferences and generate Intellectual Property for publications, this proposal is to develop three tutorials each year beginning with Technical Panels as selected jointly by the Technical Operations VP and the Panel leaders as confirmed by the AESS Baord of Governors.

Budgeted costs: $5,000 for each Tutorial or total annual expense of $15,000

Expected Revenue:

Conference Presentations: Gross income of 30 attendees at three conference workshops x $150 attendee registration less expense of $100 per attendee equals net income of $4,500.

Estimated first year expenditure would be $5,000 less net income of $4,500 indicates an investment of $500 per year not including potential publications revenue.

PROPOSAL

Approve $15,000 funding expenditure to support development of the tutorials for 2014 and include this same amount in the 2015 budget.

Unmanned Aircraft Systems Competition

- Congress has given a recent mandate for the FAA to "develop a comprehensive plan to safely integrate commercial unmanned aircraft systems into the national airspace ... the plan shall provide for the safe integration of civil unmanned aircraft systems into the national airspace system as soon as practicable, but not later than Sept. 30, 2015."

- National Defense Authorization Act (NDAA, Dec. 2011), and its associated Appropriations Act (H.R. 2055, Public Law No. 112-74, Dec. 2011) and the recent FAA Reauthorization and Reform Act (H.R. 658, Feb. 2012)

UAS Applications are rapidly developing

- Agricultural monitoring and border surveillance, search and rescue missions.

- Disaster response (e.g., wildfires and floods), military missions training with small UAS having the greatest growth potential.

- The Teal Group forecasts that the worldwide expenditures on UAS and related research may be

- About $89.1 billion in aggregate over the next decade, with the United States playing a leading role.

◼ Concerns - how UAS will impact existing aviation, especially in terms of safety, privacy, frequency crowding, and airspace congestion.

◼

UAS Category	Max. Gross Takeoff Weight (lbs.)	Normal Operating Environment (Feet)	Speed KIAS
Group 1	0-20	<1,200 AGL	100
Group 2	21-55	<3,500 AGL	<250
Group 3	<1320	<18,000 MSL	any
Group 4	>1320	<18,000 MSL	any
Group 5	>1320	>18,000 MSL	any

Backup weblinks for UAV

http://msbusiness.com/blog/2012/08/30/hinds-ccs-unmanned-aerial-vehicle-training-takes-off/

http://news.hindscc.edu/index.php/2014/01/

Proposal for Unmanned Aircraft Competition

Plan, promote and support two Unmanned Aircraft Competitions per year involving AESS Student Branches with directions and support of AESS Board members and other knowledgeable AESS members worldwide

Estimated Costs: $15,000 per event or $30,000 annual expense offset by corporate contributions of $10,000 and potential advertising revenue of $5,000 resulting in net expense of $15,000.

Income and Expense breakdown

Income
Corporate Sponsors $10,000
Advertising $2,500 x 2 = $5,000

Expense
Entry fee $1,000 x2 =$2,000
UAS vehicle cost $4,000 x2 $8,000
Travel Support $5,000 x2 = $10,000

Net
$15,000 income - $20,000 expense = $5,000 net
PROPOSAL
Approve $30,000 for two Student Unmanned Aerial Vehicle (UAV)/ Unmmanned Aircraft Systems (UAS) competition for 2014 and the same amount for 2015.

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