Herve Damlamian - UAV Tool or Toys?

Legal Requirements in the Pacific Region

- The following experiences was shared by the Republic of Marshall Islands i.e.
  - As a formality, the Director for Civil Aviation is informed of the time and location of the drone flight. A demonstration flight below 200m is required before officially flying a drone.
- Flying a drone depends on the category of the software that is being used and on the airport radius.
- Is the tool or toy accurate enough to provide the information that is required by the Fiji survey regulation i.e the Fiji government invests a lot in the survey of native lands therefore it would be useful to identify if the use of UAV tools would be effective in carrying out this work. Is there a need to review regulations that it is able to accommodate the requirements of using UAV tools?
- World Bank is now working with Patrick Mayer on collating the different requirements of flying a UAV, per country in the Pacific.
- It will be useful to have Standard Operating Procedures (SOPs) in place on how to apply the requirements at a local setting. Currently this is handled on a personal connection basis.

Should you Purchase or Lease a UAV?

- In the case of the Fiji Forestry Department, it is uncertain if a budget for leasing UAVs exists. This would be annual contracts or bi-annual contracts if a budget is available. The Ministry will need to invest in the first lease and into staff capacity development, which needs to be done on a regular basis. A better option would be to purchase or hire the machine or a consultant when the need arises e.g for Post TC Winston.
- There isn't a one size fits all option. Purchasing a UAV would be the best option if survey work is carried out on a regular basis. On a one-off basis, it would be appropriate to lease the machine or connect with a commercial company to provide trainings to staff when the need arises.

Potential Breakthrough

- Bright horizon for topography mapping.
- Focal plane array/solid state LIDAR: LIDAR on a microchip.
- Warehouse Security – the installation of security sensors which has a drone connected and sitting on the charging station. Once the sensor detects movement, the drone fly's to where the problem is located; it takes a picture of the situation and sends an image back to security headquarters. It is a cost effective approach for large organisations.

- The whole question of whether a drone is a toy or a tool depends on how it is used. An appropriate tool is needed to carry out the appropriate work.

Improve UAV data distribution

- Lessons learnt from Tropical Cyclone Pam response included the need to look at better ways to share and distribute in a timely manner, information that is collected with a drone.
- It is important to consider sharing metadata or a flight plan. This enables one to know who is
- flying on a certain day or who has already covered a particular area.
  - During TC Pam response, coordinators were assigned on the ground to link UAVs operations while results were communicated back through phone conversations. Because there was not a central location where the situation could be seen in real time, the operation depended on people working round the clock to provide the information needed.
- A GIS/RS network of people with various expertise is being established by Patrick Mayer. Such an approach will be beneficial in improving coordination.