FAMU/FSU College of Engineering

Department of Electrical and Computer Engineering

<u>Customer Needs</u>

Team # 302 – Design/Prototype a Multi-Platform Broadband Communication Payload for a Search and Rescue Operation

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Customer Needs

No.	Need
1	Locates stranded vessels
2	Compatible with drone
3	Power source is separate from drones' power source
4	Lightweight
5	Uses off the shelf, high heritage parts
6	Compatible with drone
7	Modular attachment design

Requirements

No.	Need.	Requirement
1	4	Payload aims to be less than 5kg
2	5	Payload shall leverage only COTs components
3	2	Payload can integrate with drone
4	6	Payload shall be capable of supporting FPGA algorithm code
5	7	Payload has a versatile attachment style(s)
6	1	Can detect emergency signals
7	1	Save time stamps and gps location locally on drone
8	1	Contains local storage
9	3	Payload shall operate on its own power source

Discussion of Requirements

All information shown in the Needs and Requirements tables were ascertained from the last two meetings from the sponsor. Northrop Grumman has provided a set of baseline requirements that we must meet to functionally prototype the design next semester. Additionally, codes and standards enforced by the U.S. Coast Guard for detecting emergency radar signals will also be adhered to.