A User story

The sea waste transport system is intended to load sea waste collected from the “Great Pacific Garbage Patch” and transport it to a land-based recycling and processing center on the coast of either California or Hawaii. It is expected that the sea waste transport system will be operational 365 days per year with service interruptions only for prescribed maintenance or as-needed repair. The maximum duration of allowable down time is 7 days every 4 months. Once underway, any anomalous situations that require human intervention will be communicated to the ground station. To ensure expediency, any personnel that will be required to respond to anomalous situations will be transported to the vessel by helicopter, if in range. If out of range, they will travel by surface vessel.

Stakeholder Analysis

Basic

1. Boat Pilot
2. Scientist
3. Helicopter Pilot
4. Rescue Boat Pilot
5. Maintenance Personnel

Budget

Navigation

Waste Transfer

Waste Deliver

1. Port Pilot
2. Recycling Staff
3. Safety Personnel

Bunkering

1. Port Pilot
2. Bunker Operator
3. Safety Personnel

Use case analysis

Stakeholder needs

Mission Statement

The sea waste transport system is intended to load sea waste collected from the “Great Pacific Garbage Patch” and transport it to a land-based recycling and processing center on the coast of either California or Hawaii.

Context Diagrams

See Excel

FFBD

See Visio FFBD Doc

IDEF0

Requirements

Basic

1. The Sea Garbage Vessel (SGV) shall load sea waste collected from the “Great Pacific Garbage Patch”
2. The SGV shall transport the waste to a land-based recycling and processing center on the coast of either California or Hawaii.
3. The SGV service interruptions shall only be for prescribed maintenance or as-needed repair.
4. The SGV shall not exceed a maximum duration of allowable down time of 7 days every 4 months.
5. The SGV for any anomalous situations that require human intervention shall be communicated to the ground station.
6. Any personnel that will be required to respond to anomalous situations on the SGV shall be transported to the vessel by helicopter, if in range. If out of range, they will travel by surface vessel.

Navigation

Waste Transfer

1. X

Waste Delivery

Bunkering