

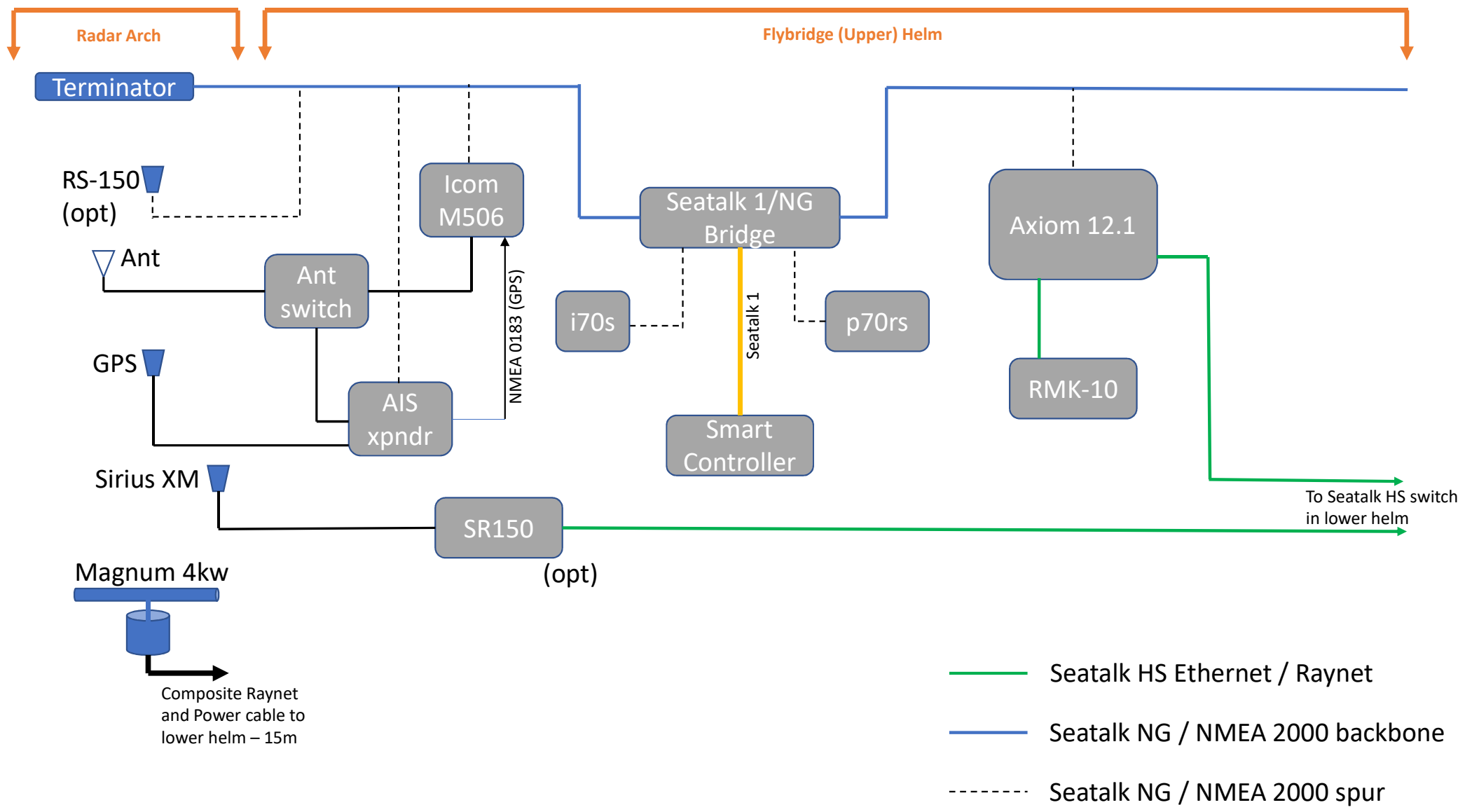
# System Block Diagram

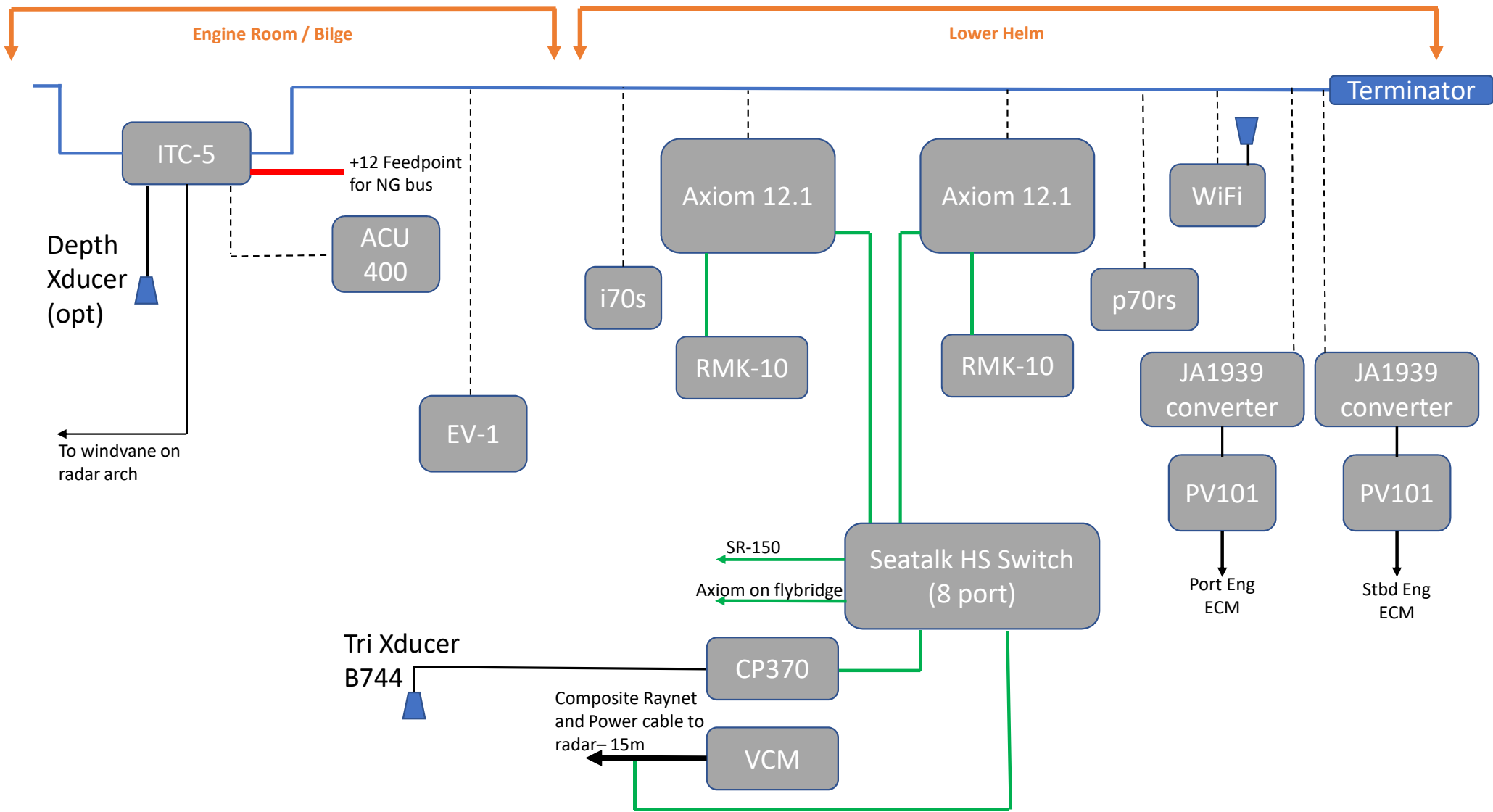
Sea Wings

Oct xx, 2019

# Background

- Existing system is a E-Classic pair of plotters, DSM-300, analog 4' open array radar, S3G smartpilot, smartcontroller remote
- Intent is to upgrade to a current generation Raymarine Axiom plotter system with new radar, pilot and fishfinder





# Power Connections

- Four main breakers currently at the DC breaker panel
  - Nav Sensors, Autopilot, Lower Helm, Upper Helm
  - Off these main feeds for the two helms, individual breakers or fuses are planned
- Nav Sensors
  - Main Seataalk NG power at the ITC-5
  - Will result in NG backbone power, i70s being live, windvane being live, GPS position being available via the AIS (or from an optional RS-150) while all else is off
- Autopilot
  - Power to the ACU and through it, the hydraulic pump
  - Power sourcing to the NG bus at the ACU will be disabled

## Power Connections (contd.)

- Lower Helm (#8 power cables currently in place), subpanel for each of the following circuits:
  - Axiom #1 and associated RMK
  - Axiom #2 and associated RMK
  - CP370
  - Seataik HS legacy switch
  - Icom VHF
  - VCM

## Power Connections (contd.)

- Upper Helm (#8 power cables currently in place), subpanel for each of the following circuits:
  - Axiom #3 and associated RMK
  - Icom VHF
  - SR150 option
  - IP cameras option

# Questions

1. Is the feed point for the NG bus reasonably balanced from a LEN standpoint?
2. Can the Icom M506 deal with multiple GPS sources on the NG bus?
3. Is the RS150 advisable, the AIS will be able to source GPS to the NG bus and is powered full time?
4. Is the legacy Seataalk HS switch able to handle all the switching data contemplated?
5. For convenience of routing less cables, would it be possible to place an HS5 Raynet switch at the flybridge helm and interface the Axiom plotter, AIS and future options like SR150 and IP cameras to that switch, then link that switch to a single port on the legacy Seataalk HS which is at the lower helm currently?
6. What does Axiom have for an engine page format, are there screen shots of it available?
7. The EV-1 will be several meters away from the ITC-5 spur connection, what is the longest run allowed for that spur?
8. The lower helm has a lot of powered units, would it be advisable to move the VCM to the upper helm circuit or to the Autopilot circuit?
9. Any suggestions to improve system availability when a single unit fails? FYI, we intend to use an iPad at the upper helm to be a repeater for one of the lower Axiom units, hence having dual plotter capability at the upper helm.