

Aero

Is this expected lifecycle cost > \$250 million dollars?

Yes

Does it perform any of the following 3 items:  
 • Is integral to the control of an airborne vehicle  
 • Monitors and controls the cabin environment  
 • Monitors and controls the vehicle's emergency systems

Yes

Class B

No

Does it perform any of the following 3 items:  
 • Is integral to the control of an airborne vehicle  
 • Monitors and controls the cabin environment  
 • Monitors and controls the vehicle's emergency systems

No

Yes

Class C

No

Does this software track the official track record?

No

Yes

Class C

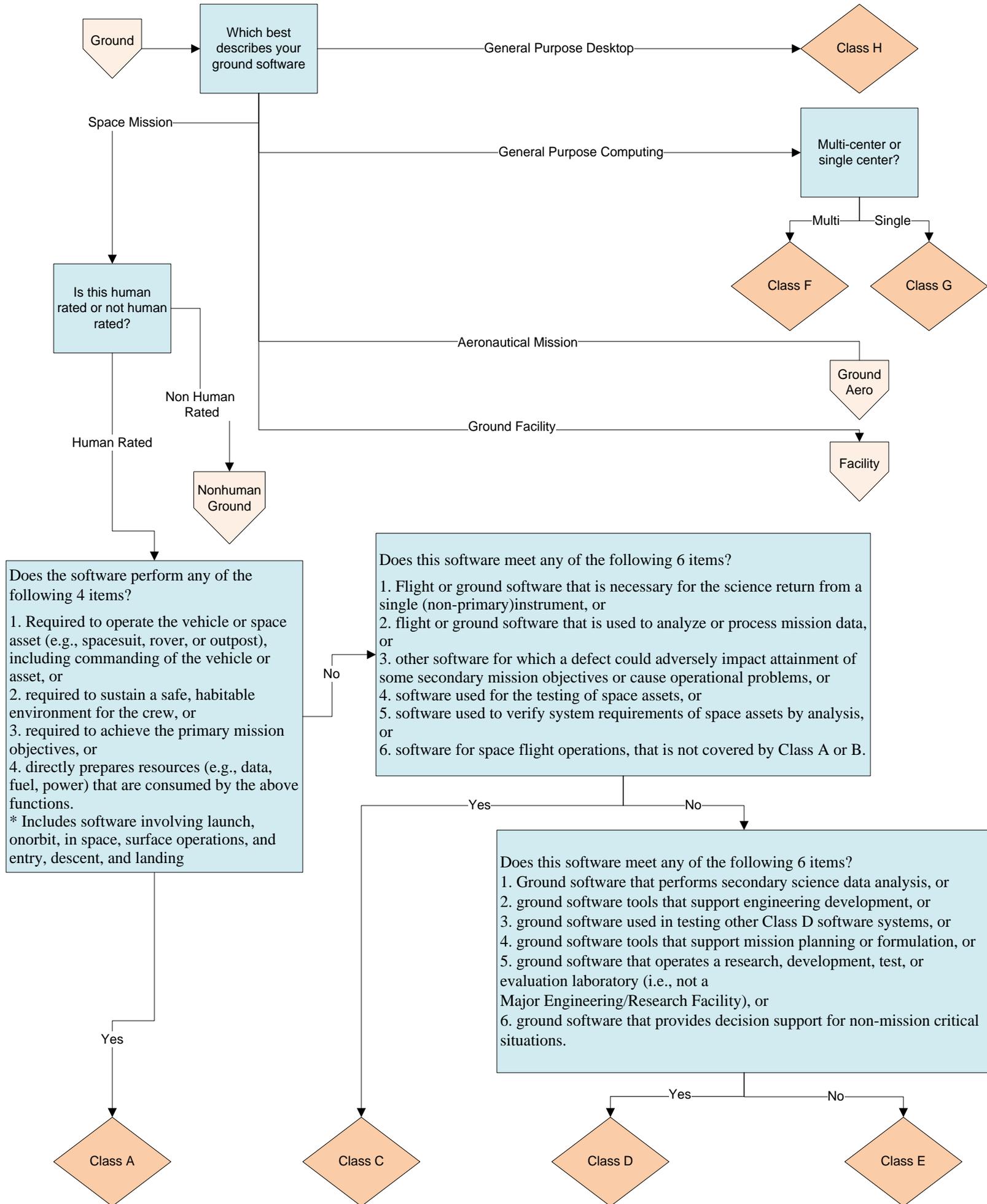
Does the software perform any of the 3 items below?  
 1. Software whose anomalous behavior would cause or contribute to a failure of system function resulting in a minor failure condition for the airborne vehicle (e.g., the Software Considerations in Airborne System and Equipment Certification, DO-178B, "Class D"), or  
 2. software whose anomalous behavior would cause or contribute to a failure of system function with no effect on airborne vehicle operational capability or pilot workload (e.g., the Software Considerations in Airborne System and Equipment Certification, DO-178B, "Class E"), or  
 3. ground software tools that perform research associated with airborne vehicles or systems.

Yes

No

Class D

Class E



Non-human Rated

Does the software perform any of the following 4 items?

1. Required to operate the vehicle or space asset (e.g., spacesuit, rover, or outpost), including commanding of the vehicle or asset, or
  2. required to sustain a safe, habitable environment for the crew, or
  3. required to achieve the primary mission objectives, or
  4. directly prepares resources (e.g., data, fuel, power) that are consumed by the above functions.
- \* Includes software involving launch, onorbit, in space, surface operations, and entry, descent, and

Does this software meet any of the following 6 items?

1. Flight or ground software that is necessary for the science return from a single (non-primary) instrument, or
2. flight or ground software that is used to analyze or process mission data, or
3. other software for which a defect could adversely impact attainment of some secondary mission objectives or cause operational problems, or
4. software used for the testing of space assets, or
5. software used to verify system requirements of space assets by analysis, or
6. software for space flight operations, that is not covered by Class A or B.

No

Yes

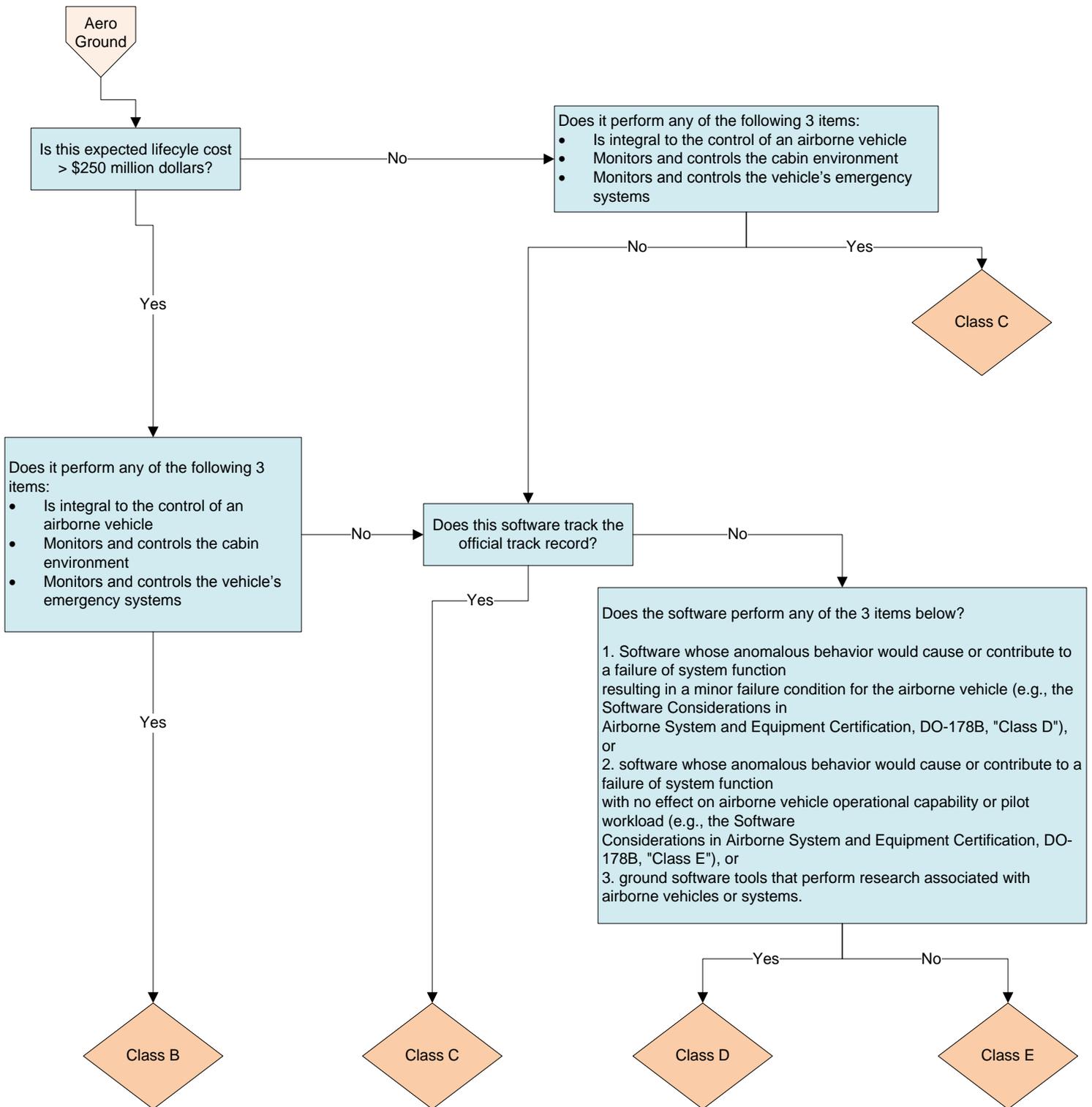
Class B

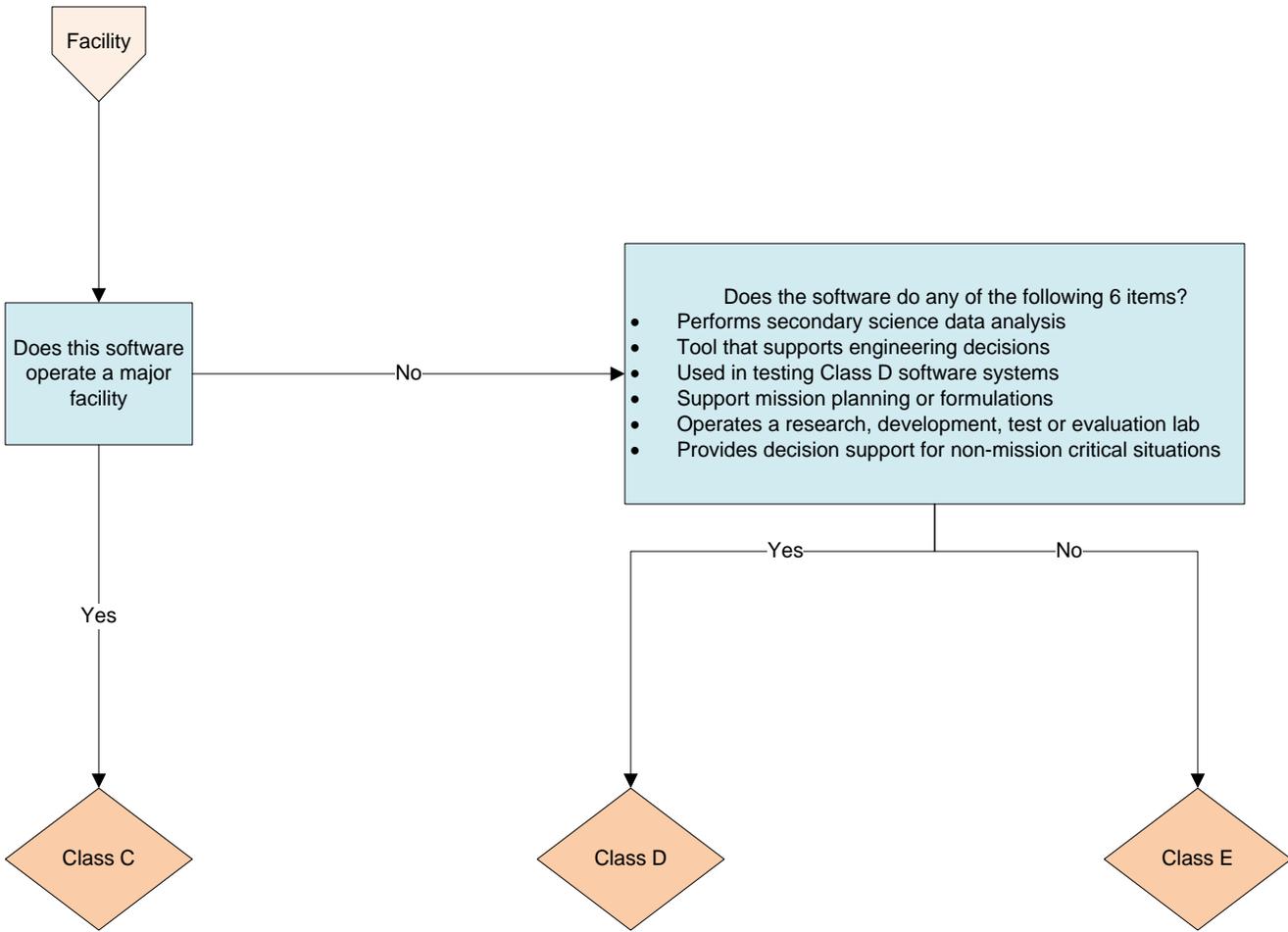
Yes

No

Class C

Class E





Nonhuman  
Ground

Does the software perform any of the following 4 items?

1. Required to operate the vehicle or space asset (e.g., spacesuit, rover, or outpost), including commanding of the vehicle or asset, or
2. required to sustain a safe, habitable environment for the crew, or
3. required to achieve the primary mission objectives, or
4. directly prepares resources (e.g., data, fuel, power) that are consumed by the above functions.

\* Includes software involving launch, onorbit, in space, surface operations, and entry, descent, and landing

Does this software meet any of the following 6 items?

1. Flight or ground software that is necessary for the science return from a single (non-primary) instrument, or
2. flight or ground software that is used to analyze or process mission data, or
3. other software for which a defect could adversely impact attainment of some secondary mission objectives or cause operational problems, or
4. software used for the testing of space assets, or
5. software used to verify system requirements of space assets by analysis, or
6. software for space flight operations, that is not covered by Class A or B.

Does this software meet any of the following 6 items?

1. Ground software that performs secondary science data analysis, or
2. ground software tools that support engineering development, or
3. ground software used in testing other Class D software systems, or
4. ground software tools that support mission planning or formulation, or
5. ground software that operates a research, development, test, or evaluation laboratory (i.e., not a Major Engineering/Research Facility), or
6. ground software that provides decision support for non-mission critical situations.

Class B

Class C

Class D

Class E

