1. Ground-based Space Situational Awareness is a physical and environmental object.
2. Ground-based Radar is a physical and systemic object.
3. Radar Transmitter Subsystem is a physical and systemic object.
4. Radar Receiver Subsystem is a physical and systemic object.
5. Radar Signal Processor is a physical and systemic object.
6. User Interface Computer is a physical and systemic object.
7. Waveform Controller is a physical and systemic object.
8. High-power Transmitter is a physical and systemic object.
9. RF Receiver System is a physical and systemic object.
10. Antenna Cooler System is a physical and systemic object.
11. Multi-channel Beamformer is a physical and systemic object.
12. Signal Processor is a physical and systemic object.
13. Antenna Array is a physical and systemic object.
14. Main Computer is a physical and systemic object.
15. User Console is a physical and systemic object.
16. Communications Node is a physical and systemic object.
17. Transmitted Radio Waves is an informatical and systemic object.
18. Radar Target is a physical and systemic object.
19. Radar Target can be detected or undetected.
20. Reflected Radio Waves is an informatical and systemic object.
21. Raw I/Q radar data is an informatical and systemic object.
22. Raw I/Q radar data can be analog or digital.
23. Published I/Q radar data is an informatical and systemic object.
24. Digital Processed Radar Data is an informatical and systemic object.
25. Track Database is a physical and systemic object.
26. External Comms Network is a physical and environmental object.
27. Atmosphere is a physical and environmental object.
28. Space Catalog is a physical and environmental object.
29. Radar Tracks is a physical and systemic object.
30. Ground-based Space Situational Awareness consists of Ground-based Radar.
31. Ground-based Radar consists of Radar Receiver Subsystem, Radar Signal Processor, Radar Transmitter Subsystem and User Interface Computer.
32. Radar Transmitter Subsystem consists of Antenna Array, Antenna Cooler System, High-power Transmitter and Waveform Controller.
33. Radar Receiver Subsystem consists of Antenna Array, Antenna Cooler System, Multi-channel Beamformer and RF Receiver System.
34. Radar Signal Processor consists of Multi-channel Beamformer and Signal Processor.
35. User Console consists of Track Database.
36. User Interface Computer consists of Communications Node, Main Computer and User Console.
37. Space Catalog and Track Database are equivalent.
38. Cooling is an informatical and systemic process.
39. Cooling requires Antenna Cooler System.
40. Cooling affects Antenna Array and RF Receiver System.
41. Generating Energy is an informatical and systemic process.
42. Generating Energy requires High-power Transmitter.
43. Generating Energy affects Antenna Array.
44. Transmitting is an informatical and systemic process.
45. Antenna Array handles Transmitting.
46. Transmitting yields Transmitted Radio Waves.
47. Propagating is an informatical and systemic process.
48. Propagating affects Atmosphere and Radar Target.
49. Propagating consumes Transmitted Radio Waves.
50. Reflecting is an informatical and systemic process.
51. Reflecting changes Radar Target from undetected to detected.
52. Reflecting affects Atmosphere.
53. Reflecting yields Reflected Radio Waves.
54. Receiving is an informatical and systemic process.
55. Antenna Array handles Receiving.
56. Receiving consumes Reflected Radio Waves.
57. Receiving yields Raw I/Q radar data.
58. Calibrating & Converting is an informatical and systemic process.
59. Calibrating & Converting changes Raw I/Q radar data from analog to digital.
60. Calibrating & Converting requires RF Receiver System.
61. Calibrating & Converting yields Published I/Q radar data.
62. Processing is an informatical and systemic process.
63. Processing requires Signal Processor.
64. Processing consumes Published I/Q radar data.
65. Processing yields Digital Processed Radar Data.
66. Correlating & Fusing is an informatical and systemic process.
67. Correlating & Fusing requires Main Computer.
68. Correlating & Fusing consumes Digital Processed Radar Data.
69. Correlating & Fusing yields Radar Tracks.
70. Passing Track State Info is an informatical and systemic process.
71. Passing Track State Info affects Track Database.
72. Passing Track State Info consumes Digital Processed Radar Data.
73. Sharing Identified Track Data is an informatical and systemic process.
74. Sharing Identified Track Data requires Track Database.
75. Sharing Identified Track Data affects Communications Node.
76. Communicating is an informatical and environmental process.
77. Communicating requires Communications Node.
78. Communicating affects External Comms Network.
79. Controlling is an informatical and systemic process.
80. Controlling requires Main Computer.
81. Controlling affects High-power Transmitter, Multi-channel Beamformer, RF Receiver System, Signal Processor and Waveform Controller.
82. Commanding is an informatical and systemic process.
83. User Console handles Commanding.
84. Commanding affects Main Computer.
85. Displaying is an informatical and systemic process.
86. Displaying consumes Radar Tracks.
87. Displaying yields User Console.