

## StarScream Integrated Missile Defense System

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Instructions Manual

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## **User Manual for StarScream Integrated Missile System with E5 Radar and T5 Surface to Air Missile**

### **Abstract:**

This manual provides instructions for operating the StarScream integrated missile system, which includes the advanced E5 radar system and the T5 surface to air missile. The system can be viewed and operated using a command line interface or a windows application with an interactive user interface. The manual covers the capabilities and limitations of the system, as well as procedures for launching and intercepting targets.

### **Introduction:**

The StarScream system is designed to intercept subsonic cruise missiles using the advanced E5 radar system and the T5 surface to air missile. The system can be operated using either a command line interface or a windows application with an interactive user interface. This manual is intended to provide users with the knowledge necessary to operate the system effectively and increase the chances of successful interception.

### **System Description:**

The StarScream system includes the E5 radar system, which is capable of detecting targets at a range of 100 miles and within a cross section of 3 meters. The system also includes the T5 surface to air missile, which has a maximum speed of mach 1.8 or 650 meters per second. The system is only capable of intercepting targets within the T5 capability, and anything faster will not be able to be intercepted.

### **Operation:**

The StarScream system can be viewed and operated using a command line interface or a windows application with an interactive user interface. The command line interface requires users to compile the program, and the system will automatically launch missiles at targets within the T5 capability. The windows application allows users to decide when to launch the T5 interceptor and how much liquid fuel each missile will have. The system will abort a launch if the amount of fuel is too little and the missile is needed to make too many corrections to preserve missiles.

### **Radar Display:**

The radar display shows all necessary information for users to understand the situation and determine how much fuel to add to intercept the target. Target information includes the type of aircraft or missile, and the display will indicate where the missile hit if it fails to hit the target.

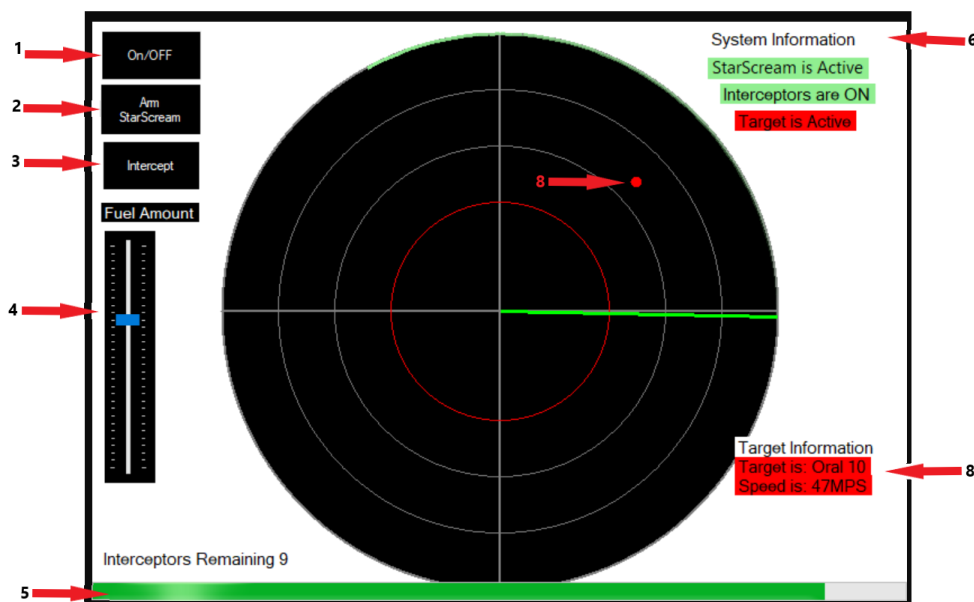
### **Conclusion:**

The StarScream system provides an integrated missile system with advanced E5 radar and T5 surface to air missile capabilities. This manual provides users with the knowledge necessary to operate the system effectively and increase the chances of successful interception.

### **Basic features:**

1. ON/OFF- Turns on and off the radar system this will display the targets and will show the interceptor missile if one was launched.
2. Arm ON/OFF- This Button arms StarScream this allows us to launch the missiles at the intended targets. A red inner circle will be flashing on the radar screen to allow the user to know that the system is on and ready.

3. Intercept- This button is used to launch the missile at the target. Once pressed a Blue Missile will appear on the radar screen and will track the target till it is destroyed or is out of fuel. In some cases the missile may run out of fuel too quickly. Remember you only have one shot at each target.
4. Fuel Amount- This slider will increase the amount of fuel of the interceptor rocket. The more the amount of fuel onboard the rocket the greater the chance of interception.
5. Interceptor Status- This will show you how many Interceptors that you have left. Due to lack of microchips and high fuel cost you are only able to have 10 interceptor Missiles.
6. System Information- User is able to see if the radar system is on, StarScream is Armed and if a target has been found and is a threat. Only targets that have been found to be a threat will show.
7. Target Information- The type of target will be shown in this case all targets will consist of russian origin. Under this will display the Speed in which the target is going. It will also display the predicted intended target.
8. Target- Here is the target that has been detected by the radar. The target will move in a random path and change speed constantly. Target position is updated every .3 seconds.



### **Standard Operating Procedures for Interception with StarScream Missile Defense System**

1. Power on the StarScream Missile Defense System following the standard manufacturer's Instructions.
2. Arm the StarScream Rocket System to prepare for interception.
3. Adjust the level of fuel for the rockets to optimize the chances of a successful launch and interception. The higher fuel level will increase the likelihood of a successful launch and increase.
4. If the target is located far from the center of the Radar, We recommend increasing the level to maximum.
5. Launch the interceptor when ready.
6. In case the interceptor fails to hit the target, initiate the damage assessment procedures.
7. Assess the damage to the area which the target inflicted damage.
8. After the assessment is complete, close the damage assessment procedures.
9. If the previous launch attempt was unsuccessful, we recommend increasing the fuel level to allow for maximum speed and adjustments.

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