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## **SUGGESTED RC FLYING SITE SPECIFICATIONS**



The AMA has determined that most AMA Chartered Clubs and members are careful in their selection of flying sites, site layout, and operational practices. The purpose of this document is to assist clubs in creating a flying site that is safe and promotes the fun and enjoyment of model flying. Please note that the AMA Safety Program must be followed at all times. AMA does not sanction or charter flying sites. We charter clubs but leave the design of sites to the local club. However, we do provide some guidelines here to assist in this process.

Every model flying site is different, hence the reason AMA does not have specific requirements for the site layout, other than the requirement to follow the AMA Safety Program. Considerations need to be made for the surrounding area and what space the club has obtained permission to overfly. Club membership should be involved in the design of a flying site and in creation of the specific flying site safety and operational rules associated with it to ensure the site owner, spectators, and model fliers of a safe flying environment. Please study the sample flying site lay-outs below. Use these samples to assist you in creating a site layout that works for your space, model fliers, and types of models to be flown at this site. By no means do these samples cover every possible situation, but they do show some typical lay-outs of flying sites. If you see that there is room for improvement of your field, we hope these samples will serve to assist you. If you are designing a new flying site, we offer these sample designs to assist you in planning your site. These suggestions are not mandatory requirements, and the use of any or all of these suggestions does not, of course, guarantee that no accident will occur. The AMA recommends that individual clubs design their flying sites based, not only on geographic area available, but also on sound sensitivity, obstructions, proximity of neighbors, etc. The types of aircraft the site is anticipated to accommodate, such as turbine-powered jets, giant scale or small electrics, will also affect an increase or decrease of the entire layout, including distances.

## Steps to creating a Flying Site Layout

1. Determine available size of flight zone.
2. Create Safety line(s) to divide flight zone(s) from non-flying area.
3. Determine taxi and engine running areas.
4. Determine pit area size.
5. Determine spectator area.
6. Determine parking lot area.
7. Determine distances to the various components of the flying site, based on location of safety line(s) and flight zone(s).

## General Guidelines for Flying Site Planning

The table below can be used as a rough guide to help you to determine how much space might be needed to accommodate different types of aircraft. You can see that Jet and Giant aircraft need more space than Park Fliers do... for obvious reasons. Here again, these numbers are not requirements, but just some general guidelines that can be used to plan out your site.

	<b>JETS/ GIANT SCALE/ PATTERN FIELD</b>	<b>SPORT FLYING FIELD</b>	<b>SMALL AIRCRAFT FIELD</b>	<b>PARK FLIER FIELD</b>	<b>FPV DRONE RACING FIELD</b>
<b>DISTANCE A</b>	1500'	750'	500'	150'	300'
<b>DISTANCE B</b>	2000'	1000'	500'	150'	150'
<b>DISTANCE C</b>	4000'	2000'	1000'	300'	300'
<b>DISTANCE D</b>	500'	250'	250'	50'	50'
<b>DISTANCE E</b>	0' - 15'	0' - 15'	0' - 15'	0' - 15'	0' - 15'
<b>DISTANCE F</b>	0' - 25'	0' - 25'	0' - 25'	0' - 25'	0' - 25'
<b>DISTANCE G</b>	0' - 45'	0' - 45'	0' - 45'	0' - 45'	0' - 45'
<b>DISTANCE H</b>	0' - 65'	0' - 65'	0' - 65'	0' - 65'	0' - 65'
<b>DISTANCE I</b>	0' - 80'	0' - 80'	0' - 80'	0' - 80'	0' - 80'

By selecting a field type in the chart above, you can plug in the related numbers into the flying site graphic layout in Figures 1 and 2 on the next page. This should give you a rough idea of what space is needed and a general layout of the field. When creating or redesigning any flying site, feel free to contact the AMA Flying Site Assistance Coordinator with any questions, comments, or concerns regarding specifications and layout.

## Flying Site Graphic Layout

FIGURE 1 (DISTANCES IN FEET)

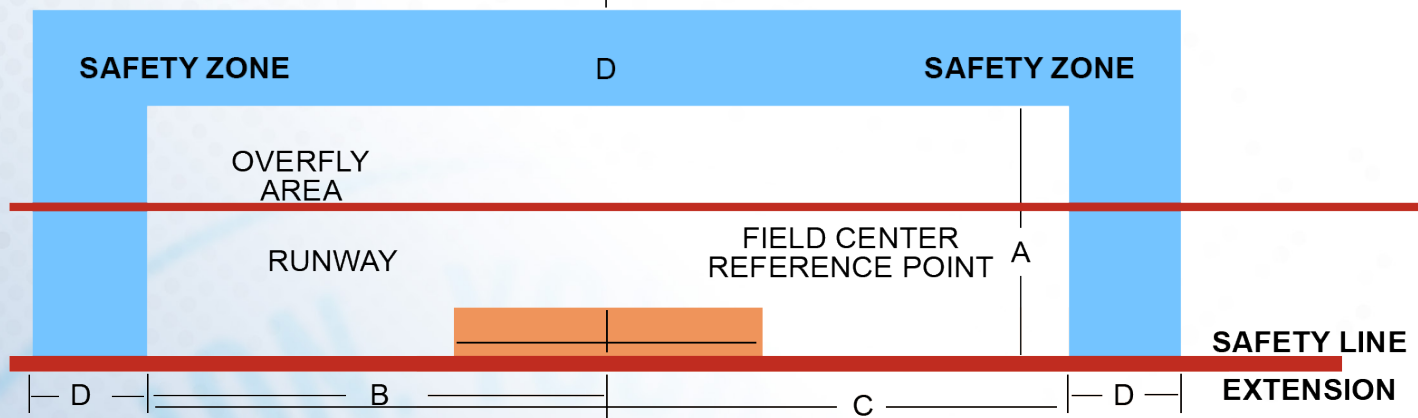
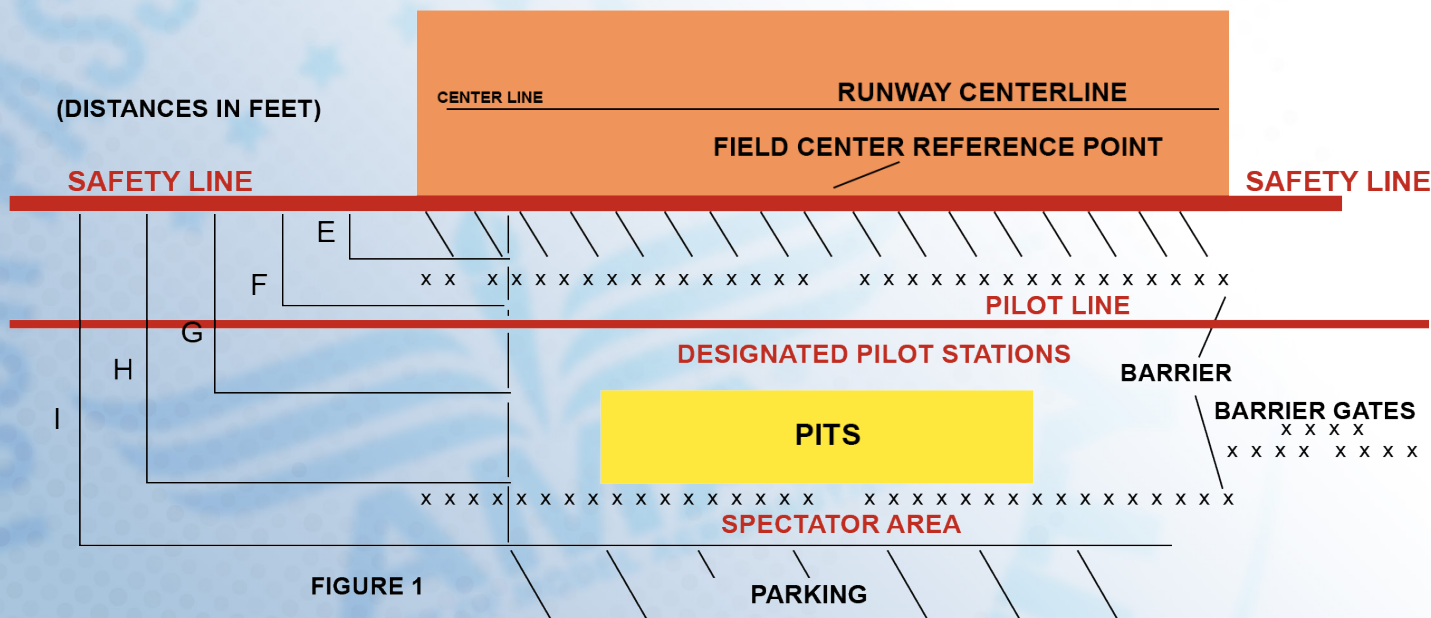


FIGURE 2

(DISTANCES IN FEET)



## Components of a Flying Site

**Airspace of Flying Site:** The flight area, or “box”, inside of which all flying is to take place. The flight area would be the defined total airspace that model aircraft should always stay within while in the air. This area should be clear of unprotected people, vessels, vehicles or structures. Any obstacles, structures, or areas where people could be within this defined area should be clearly marked so that pilots know to not overfly them. The size of this “box” should be the first consideration, based on the type of aircraft anticipated to operate on this site.

The field center reference point is shown in FIGURE 2 but is essentially the edge of the runway at center of field (See alternate site layouts).

## General Size Recommendations for the Flight Area or “Box”

- Aircraft over 72” wingspan such as, Giant Scale, RC Scale Aerobatics RC Pattern, Sailplanes, and Turbine powered Jet aircraft (due to their speed): These may need as much as 2000 feet to the left and right of the pilot and 1500 feet in front of the pilot (total flight box size of 4,000 feet long by 1500 feet wide). The RC Aerobatics event has a defined “box” of 3580’ long by 574’ deep (1790’ to the left and right of the pilot and 574’ in front of the pilot). The aircraft DO fly outside of this area at times, so, with overfly area, you need about 4000’ x 750’ size box for the flying site.
- RC sport/aerobatic/scale models/helicopters up to approximately 72” wingspan: This would work for most RC sport/aerobatic/scale models up to approximately 72’ wingspan and is a typical size found at many AMA club flying sites.
- RC Park Fliers (models 2lbs or less and max airspeed of 60 MPH): these models will be able to fly in a much smaller area, about 300’ x 150’, roughly the size of a soccer field.
- RC Drone racing: these aircraft need a slightly wider field than the RC Park Fliers, about 300’ x 300’ to accommodate the racecourse.

## Barrier (If Desired)

Designed to stop models from veering into pilots’ and/or spectators’ positions (Includes plastic or chain- link fencing, hay bales, shrubbery, etc. These may run the length of the flight line or be short to protect a single pilot station). If using metal fencing (chainlink, etc.) consider that the transmitter antenna needs to be in the clear of any metal that could cause loss of signal to the aircraft. Consider using non-metallic materials such as orange plastic fence materials.

Runway: If flying traditional radio-controlled airplanes, a runway should be designated within the overfly area on the site. This can be grass, dirt, geotextile, or hard-surface. If space allows, it might be desirable to have two runways to be able to handle most all wind directions.

Safety Line: Establishes the area in front of which all model flying must occur. Only personnel associated with flying the model aircraft are allowed at or in front of the safety line. This line can be straight, segmented, curved, or even box-shaped as long as the AMA Safety Program is followed so that the pilot, helpers and spectators are behind the safety line while aircraft are flying. Under certain conditions it may be possible to achieve a flying area covering almost 360°.

Pilot Line/Station(s): Where all pilots will stand while flying model aircraft.

Pilot Pit Area: Where pilots and helpers stage and service their models.

Spectator line: Where spectators can view the action. This can be a simple line of separation or perhaps a nice viewing area complete with grandstands.

Parking Area: You might have separate parking areas for pilots and spectators, depending on your site layout.

Safety Zone: A safety zone, surrounding the OVERFLY AREA (as marked on Figure 1), is desirable.

## **Sign Posting Recommendations**

- “My Club Flying Site” (This sign may be incorporated with the field rules but should be the leading words in a larger letter size at the top of the sign. Place any signs so that they can be easily read.
- Field Rules: Created by the club and members, this document should be placed near or in the pilot’s pit area so that they can be found and easily reviewed at any time. Pilots new to the field should be made aware of these rules prior to any flight operations.
- Current official AMA Safety Program: should be posted next to the field rules.
- “No spectators beyond this point without escort”: as needed
- Designated parking area (signs at boundaries): as needed

- Emergency Poster: which should contain the following at a minimum:
  - Telephone numbers of local EMS, emergency, and hospital facilities
  - Map showing the location of these facilities, with addresses
  - GPS coordinates and address of flying site to assist emergency services in locating the site.

## **Equipment**

- Frequency control board (if using 27 MHz, 50 MHz, or 72 MHz frequencies)
- First-aid kit(s)
- Fire extinguisher(s) with appropriate ratings (especially for Li-PO fires)
- Sand bucket(s) for Li-PO batteries

## **Alternate RC Flying Site Suggestions**

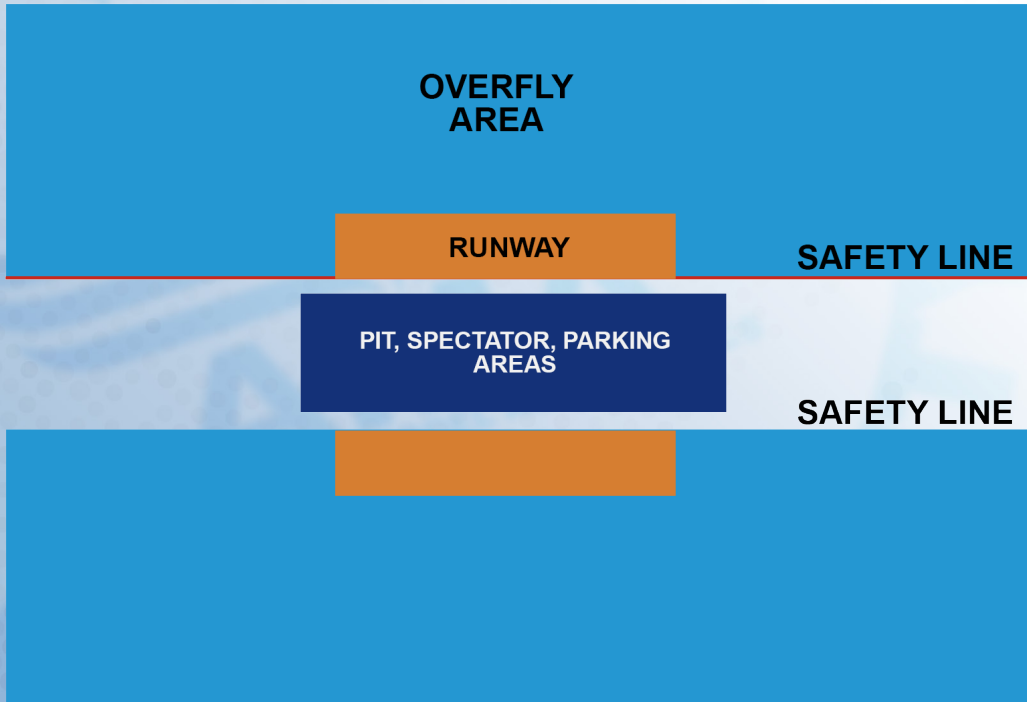
Sites may also be configured in various ways to accommodate different types of models such as sailplanes or could include multiple flying areas for simultaneous use. Examples would be a curved or box-shaped safety line as seen in the L Site Layout and the Combination Site Layout diagrams as shown. Care must be taken to fulfill the requirements found in the official AMA Safety Program.

Sample field layouts with different options are illustrated in the following diagrams. (Not to scale.) Remember, the illustrations provided here a NOT the only options for a club! Feel free to modify as you see fit, if you fulfill all requirements of the AMA Safety Program.

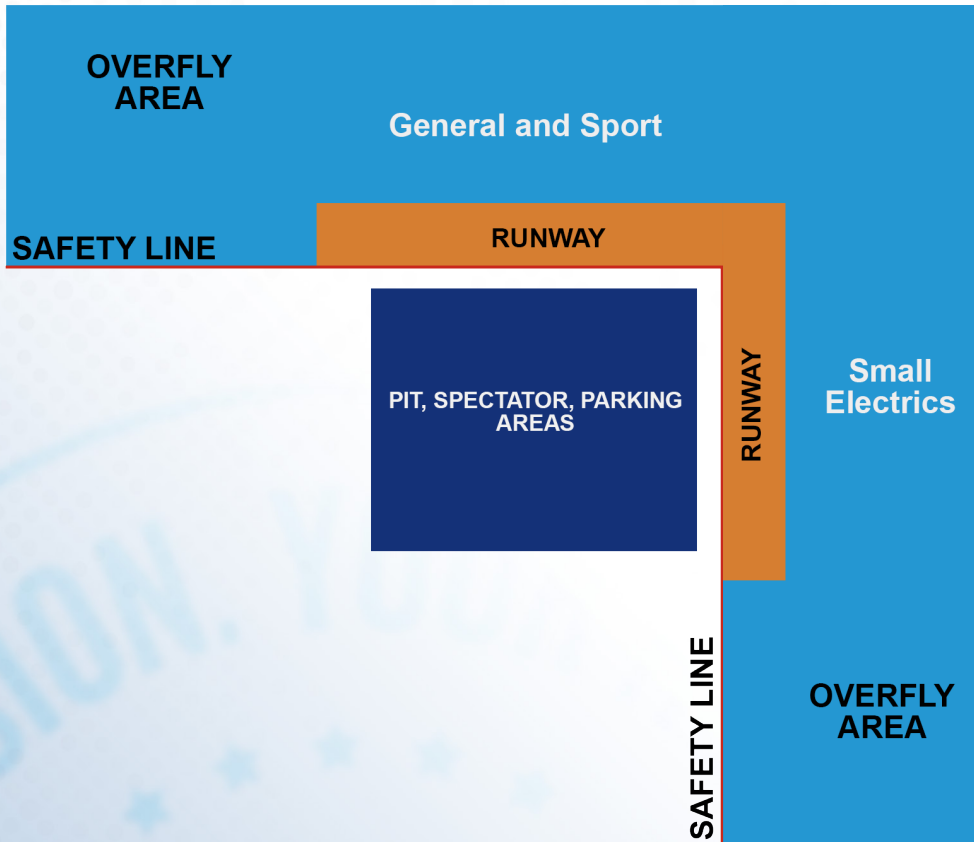
### COMBINATION SITE LAYOUT



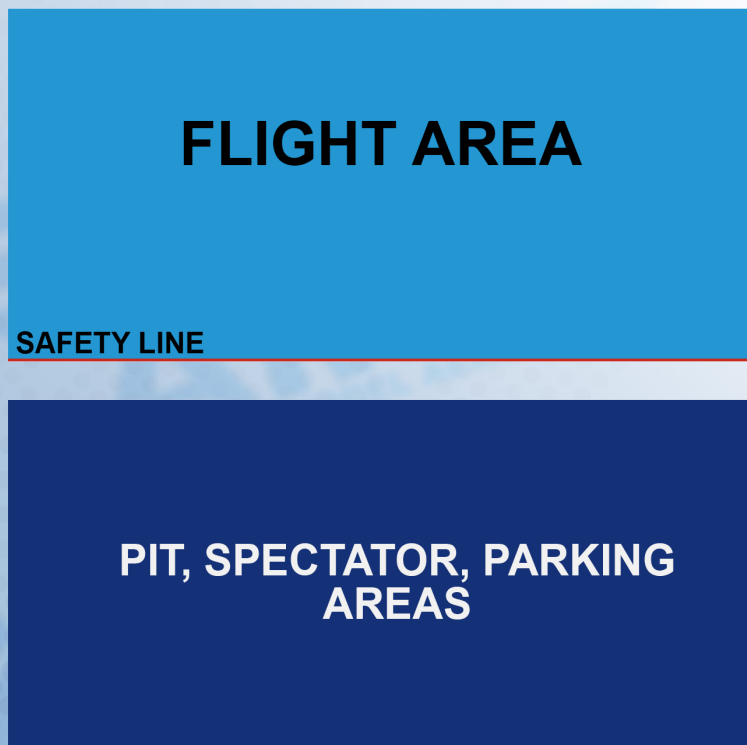
### PARALLEL SITE LAYOUT



L SITE LAYOUT

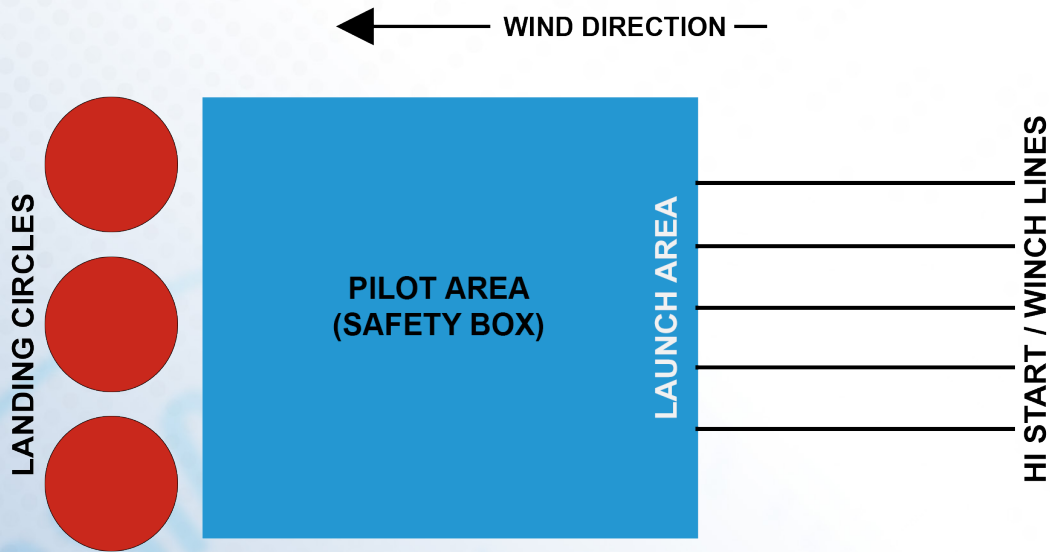


PARK FLIERS AND DRONES





SOARING SITE LAYOUT



PIT / SPECTATOR AREAS