How to …

… describe what you see on your Radar Scope ?

"Ehhm, hey Falcon11, I have something on my radar ……I think there are two or more of them ……they fly directly at me ……ahh …now they are turning away ….what the hell are they doing ….."

That's not the way you want to tell your flight lead that you have a "Contact, group, bullseye 180,23 angels 20, many, hot, bogey …… contact is beaming east."

I'll give you some general information how to "paint the picture".
Also you get examples how to describe formations and maneuvers of fighters using brevity words.

1. General

1.1. Group criteria
Call it a group if the radar contacts are within 3 nm.

1.2. "BRAA" or "bullseye"
 "BRAA" or "bullseye" will accompany ALL calls to reduce or eliminate ambiguity.

1.3. Callsign usage
A callsign will be associated with every radio transmission.

1.4. Anchoring 3 or less group locations
The group closest to the fighters will be anchored off bullseye first, followed by the next closest, and so on. If multiple groups are equally distant from the fighters, the group closest to the bullseye will be anchored first. If a group is within 2 nm of bullseye, it will be anchored as "group over bullseye". Up to three groups may be anchored in this way.

1.5. More than 3 groups
If there are more than 3 groups, call out the number of groups, but anchor only the 3 closest groups to the fighters.

2. Labeling

Labeling the groups picture will help fighter targeting.

2.1. Two groups

As for the labels used to describe two groups, there are two major categories: Azimuth and Range. If the groups are an azimuth relationship, name the groups using the 4 cardinal directions, i.e. "north group, south group etc.". If the groups are in range relationship, name the groups using "lead group" and "trail group". If you describe the formation in between a group, use the terms "line abreast" for azimuth split and "lead-trail" for range split formations.

2.2. Echelon

A fill-in to a 2 group presentation is "echelon". If the 2 echelon groups are wider than they are long, call " `…2 groups, azimuth split 10, echelon northwest, south group bullseye ….`". If the 2 echelon groups are longer than they are wide, call "`…2 groups, range split 10, echelon southwest, lead group bullseye ….`".

2.3. Champagne and Vic

Champagne: An attack of three distinct groups with two in front and one behind.
Vic: Three groups, contacts or formations with the single closest in range and two contacts, azimuth split, in trail.

When calling the distances between groups in a Champagne or Vic, the azimuth split will be called first and the range split will be called in the next transmission. However, if it looks only slightly like a Champagne or Vic, it will be called a 3 group wall. As a rule of thumb, the trail group(s) should be swept approximately 45 degrees or more from the lead group(s) to be considered a Vic or Champagne.

2.4. Vic labels

In a Vic, the group closest to the fighters will be called the lead group, the other two are trail groups ().

2.5. Champagne labels

In a Champagne, the 2 groups closest to the fighters will be called lead groups (*north lead group and south lead group in a Champagne headed east towards the fighters*) and the lead group closest to the fighters will be anchored off the bullseye. The third group in the Champagne will be called trail group.

For a 3 group Champagne or Vic, use the following when labeling the presentation.

VIC
```
"Falcon1, 3 group Vic, azimuth split 25, lead group bullseye
190/7."
```
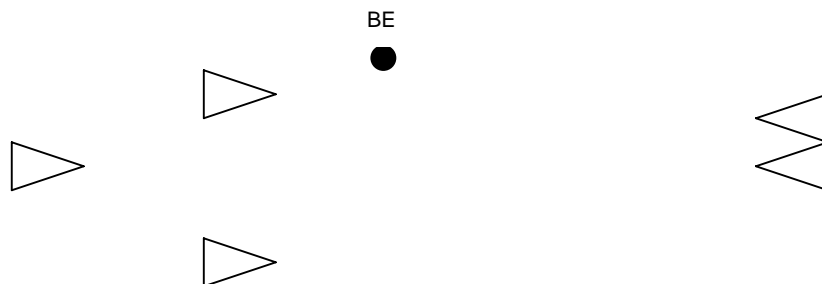
BE
●
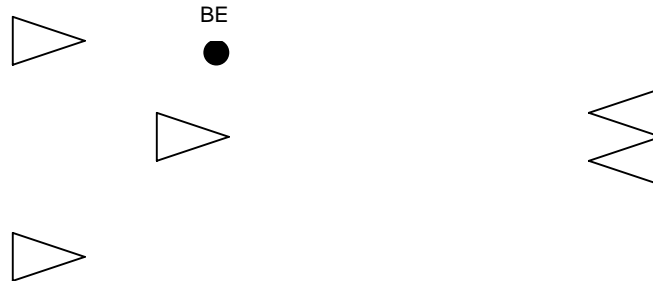
From here provide the fill-in of how far back the trail groups are.

```
"Falcon1, trail groups range split 12."
```

CHAMPAGNE
```
"Falcon1, 3 group Champagne, azimuth split 12, north lead
group bullseye 270/10."
```

BE
●

From here provide the fill-in of how far back the trail group is.

```
"Falcon1, trail group range split 20."
```

2.6. Heavy

If you have more than 3 contacts in a group, but the specific number cannot be accurately determined, use the term "heavy". However, if you can accurately count the number of contacts in a group, you should call the group heavy and provide the specific number of detected contacts. `"Falcon1, west group heavy, 4 contacts."`

2.7. Maneuvering groups

If you see a group maneuvering, but you're unable to determine the specific maneuver, call it maneuvering and wait for the next radar sweep, cycle, hit. "Falcon1, lead group maneuvering". After the next cycle, sweep, hit you might have the information you need to call the group as flanking / beaming / dragging or its tracking direction.
The terms "maneuvering azimuth" and "maneuvering range" may also be used if the group is continuing its split and hasn't settled on a steady beam, drag, etc…

2.8. Additional groups

Normally used prior to the start of the intercept, i.e. when a label is not appropriate. If a core information picture has been called and someone else detects a group that was omitted in the core picture call, that group will be called an additional group and anchored off bullseye. A comm. example would be, "Falcon1, 2 groups, group bullseye 360/10, group over bullseye maneuvering." If Wolf 1 detects the 2 groups called in Falcon1's core picture <u>as well as another group</u>, the call would be, "Wolf1, additional group bullseye 190/7, hits 5000." Another use for "additional group" will be if a label has been attached to the "hot" groups and there is another group that is not part of the label which has been called off in a previous picture call. An example of this is "Falcon1, 2 groups, azimuth split 10, north group over bullseye." In the next transmission call the group that is not part of the label, "Falcon1, additional group, bullseye 240/13, marshaling."

2.9. New group

Another new picture situation would be, if you suddenly detect an unreported group. If the unreported group is detected prior to meld/targeting range, it will be call a new group and anchored off bullseye. If a new picture is appropriate based on the "new group", then make the new picture call in a subsequent transmission, but only after first reporting the "new group's" location. Next, call a new picture <u>if able</u>: "Wolf1, new picture, 3 groups ladder, range split 10, lead group bullseye …."

2.10. Popup groups

If the unreported group is suddenly detected inside meld/targeting range it will be called a popup group. If the fighters are not within visual range of each other (nominally 3 miles), the popup group will be anchored off bullseye unless it meets threat criteria, in which case it will be called as a threat in BRAA format. If the fighters are within visual range of each other, the popup group should be anchored using a BRAA formatted call, directed at the fighter who needs the information the most: a fighter now threatened by the popup, the flight lead (in order to target the popup), or fighter not currently tasked with targeting the group. Because the "popup group" was detected inside meld/targeting range, the popup group will not normally be used to call a new picture.

2.11. Untargeted group

If a "new", "popup" or "additional" group is recognized or perceived to be untargeted, the label "untargeted group" will be used und the group will be anchored off bullseye. "Falcon1, untargeted group, bullseye 270/15, estimate 20000".

2.12. Threat calls

When aircraft position is known, threat information will be provided to a specific aircraft callsign either in BRAA or cardinal direction, followed by range. "Falcon1, threat, BRAA 240 14, 12000" or "Falcon1, threat, southeast, 12 miles". If exact fighter location is unknown, threat information may be provided using bullseye reference, but the word "bullseye" will immediately follow the word "threat". "Cobra1, threat bullseye 130/15, angels 10".

3. Maneuvering

Both, bad guys and guys do the same maneuvering, but you call it different. If you want to "beam" a radar guided missile, you would call `"Falcon11, notching south"`. If a bad guy would take your radar on the beam you would call `"Falcon11, trail group beaming west"`. Following you'll find two drawings describing the different terms used.

This explains the movements for BAD GUYS:

```
                              DRAG
                               ↑
                               │
                               │
  BEAM          ◄──────────────┼──────────────►          BEAM
                             ╱  │  ╲
                           ╱    │    ╲
                         ↙      ↓      ↘
                 FLANK                      FLANK
                             HOT


                               ↑
                               │
```
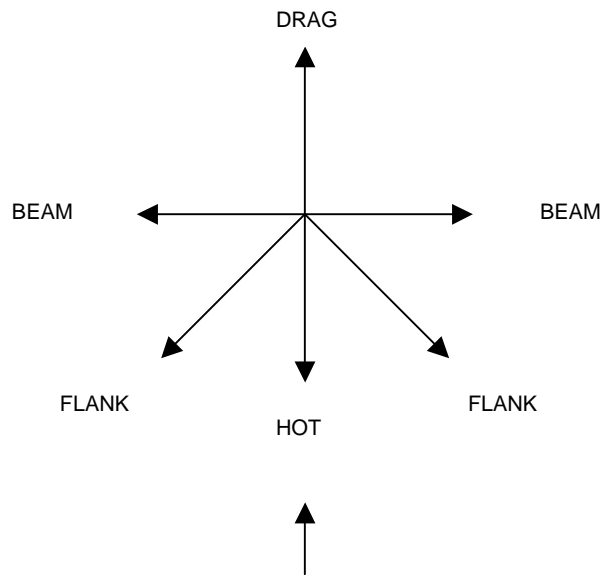
This explains the movements for GOOD GUYS:

```
                              PUMP
                               ↑
                               │
                               │
  NOTCH         ◄──────────────┼──────────────►          NOTCH
                             ╱  │  ╲
                           ╱    │    ╲
                         ↙      ↓      ↘
                 CRANK                      CRANK
                             HOT


                               ↑
                               │
```