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TITLE: TAC R

SCOPE: The evolution of two principles in the employment of tactical reconnaissance of importance to Army (ground force) officers. Developed to facilitate the efficient use of Tac R through a knowledge of what to expect from it and, with respect to these two principles, how to assist the Air Force pilot-observer in obtaining the maximum results.

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T A C R

Can tactical reconnaissance, do the things you expect of it? Will it be there when you need it? Do you, as a commander or staff officer, know how to use it efficiently? I hope this paper will assist you in answering these questions. Broadly speaking, tactical reconnaissance has several meanings--the only one considered here is the use of this term as it applies to the visual search for information from high-performance aircraft. These tactical reconnaissance (Tac R) missions are accomplished by a pilot-observer in a high-speed single-seater plane. Habitually, an additional plane was employed to provide security for the primary one.

The writer's experience is based on the operations of the First United States Army and its supporting IX Tactical Air Command in their operations on the continent of Europe. This experience was gained from the vantage point of the VII Corps which operated under the First Army. Shortly after V-E Day, a G-2 Air conference at the 12th Army Group to crystalize thinking and theories in regard to aerial reconnaissance in support of ground units provided an opportunity to "compare notes" and to broaden the base of information gained through experience. Likewise, being one of a group to present and justify the conclusions and recommendations of this conference to the War Department General Staff a few weeks later, had the effect of further crystalizing the writer's thinking and opinions. In

addition it provided an opportunity to compare methods used on the "Continent" with those in practice in other theaters.

While most of the higher commanders considered Tac R a valuable asset, division commanders were divided in opinion on its worth. Primarily it is a tool for the higher echelon but if employed in certain fashions, it can be of direct assistance to divisions and lower units. Likewise, commanders and staffs of these units should understand the use of Tac R. Only then can they know when to expect its assistance and the type of assistance it can offer. In this light I propose to develop two basic factors in its employment, coverage and reporting.

COVERAGE

As with all other military elements, economy of force is of paramount importance. Obtaining maximum results with the means at hand is forever a commander's problem. In this field, however, the Army (ground force) officer has a big role as he influences considerably the employment of aircraft. Securing good coverage boils down to three factors:

1. How much ground can be covered?
2. What specific areas should be covered?
3. How thorough will this coverage be?

Basically there are three methods of visual reconnaissance:

1. Area search in which a flight makes a complete search of an area, usually for a specified period of time.

2. Road and rail searches which I prefer to call route searches.

3. Mission tasks in which an observer is sent to a certain locality to determine specific information.

Each method has its place, its capabilities and its limitations, However, in planning and in establishing some sort of SOP, it can be seen that the mission type search, to be economical in effort, is dependent upon confirming or negating prior information. One of its pitfalls is "enemy intentions"--trying to guess where the enemy is and looking for him there. Its two major weaknesses are its faulty intelligence aspect and its waste of air effort. In my opinion it should be used only in conjunction with one of the other two methods. Route searches have as their principal advantage reconnaissance to considerable depth. In practice they give good coverage of the rail and road nets but rather meager results adjacent to them. Their two foremost disadvantages are the large gaps between routes and their relative remoteness from the front lines. Area search had the advantage of almost complete surveillance, but to obtain it considerable depth of reconnaissance had to be sacrificed when compared with route reconnaissance. In Europe, area search was generally accepted as the best and most thorough type, in the majority of situations. In view of this condition, I believe an examination of the salient features of one method of area search is warranted.

During September 1944, the First Army inaugurated a system which proved to be very satisfactory and used it throughout the remainder

of the European war. The accompanying sketch is a schematic diagram showing how this Army and its associated Tactical Air Command (IX) used their tactical reconnaissance means. The area to be reconnoitered was first divided into two zones--a corps zone and an army zone. The corps zone began at the front lines and extended forward to some well-defined terrain feature about 35 miles beyond the front. This corps zone was then divided into Tac R areas, each having the same forward and rear limits as the corps zone but whose lateral boundaries coincided with the corps boundaries and a logical projection of them. The army zone, deeper in enemy territory, was generally divided into two areas. During the fall and winter months, four missions each day could keep one of these tactical areas in the corps zone under almost constant surveillance during the daylight hours. Usually a new flight entered it shortly after the previous one departed. These Tac R areas provided not only sufficient maneuver space for the high performance aircraft; but also, and more important, an area of primary interest to each corps directly to its front.

Prior to the takeoff, the pilot was briefed as requested by the corps G-2 Air and "reported in" to corps by radio as he flew over the advance CP en route to the area. If nothing new had developed the pilot was instructed to proceed on his pre-planned mission. At times it was necessary to give him additional instructions or to modify preceding ones. As we gained in experience it became more normal to allow the pilot to cover the area in his own way, without

stressing any particular part of it. One of the reasons for this was the psychological factor. If you asked him to search a patch of woods for tanks he was almost certain to spend considerable time doing so, and then report "Ten to 20 possible tanks." Nothing definite had been gained while losing coverage of some other part of the area where he may have been able to actually see enemy tanks. Other reasons for not changing pre-planned missions without adequate grounds will be discussed later.

Great effort was made by the 67th Tactical Reconnaissance Group to have a pilot fly the same area each time he went out on a mission. This increased efficiency tremendously because:

1. The pilot became very familiar with the area and was able to note changes from day to day. We felt this system was paying off when we began to receive reports such as "many tank tracks at edge of woods—none there yesterday."

2. The pilot took a definite interest in the corps he was supporting, and kept abreast of its situation.

3. He had a strong incentive to do a good job due to the tangibility of his efforts.

4. Briefing became comparatively simple, as the situation was continuous and only a relatively small amount of new terrain was added to the area periodically.

To obtain this excellent coverage, a sacrifice elsewhere was inevitable. As a general rule the reconnaissance areas in the army zone were covered by only two missions daily. While more thorough

coverage was desired here, there were only two places to get the aircraft. They had to be taken, either from the small reserve retained for the unexpected, or by reducing the density of coverage in the corps reconnaissance areas. It was decided the small reserve could not be abandoned and the more continuous surveillance was of greater importance in the corps zone.

Fundamentally this system is very simple and flexible. It can be modified through the use of route and mission type searches by one of the regularly assigned missions or by an additional one. Deep route reconnaissance can be undertaken when necessary by a mission from one of the army areas or by special flights. The reconnaissance areas can be changed from day to day to fit the situation.

It is not within the scope of this paper to develop the delineation of these reconnaissance areas. A word of caution, however. The accompanying sketch is a schematic and comparable to a schematic diagram of a large infantry unit in the defense. Neither can be superimposed on any situation. In the past, our air reconnaissance was meager and I believe it should always be relatively so, in order that the bulk of our tactical air can act offensively. To utilize economically this meager effort the actual placing of these boundary lines requires not only a thorough knowledge and understanding of the situation but also a knowledge of the commander's intentions and of the enemy's capabilities.

Thus far we have considered the three basic types of visual searches; area, route, and mission and have seen that area search

became the basic type. In addition, we have examined one form of area search in some detail and have seen how it provides for missions that support directly, a definite ground unit—the corps. We now have a mission over each of the corps reconnaissance areas throughout the daylight hours. The next big problem is handling the information obtained from the pilots.

REPORTING

A cursory examination of the problem of reporting information obtained may lead the uninformed to believe it little different than reporting similar information obtained by ground units. Actual operations showed the situation to be radically different in two respects. It is my opinion the lack of understanding of these differences has led to false conclusions.

One of these differences is what I term the pilot's problem. It is a complex one because of the many things he must do, almost simultaneously. All airborne aircraft of the Tactical Air Command were controlled and directed by an elaborate system now called the tactical air control center and the tactical air direction center. These control agencies could inform the pilot, by radio, of his location should he become lost, could warn him of hostile or unidentified aircraft in his vicinity, could inform him of changing weather conditions and were able to direct him to his base when "weather" thereat was closing in. Naturally a pilot over enemy territory devoted some of his radio time and attention to this source of valuable information, and rightly so, as it increased his efficiency.

Next, the observer must communicate with his "wing" or cover man who protects him during observations and is on the lookout for enemy aircraft. At times enemy aircraft must be either engaged or evaded. Usually complex courses were flown to avoid known flak concentrations, and violent evasive action was required when dense flak areas had to be entered. Finally there was the matter of making observations while moving several miles a minute. Add to these the normal difficulties of piloting a high-speed airplane, and it can be seen the observer-pilot was a very busy man.

How did this effect the ground force, and how did it lead to false conclusions? Primarily by abusing the privilege of ground to air communication means provided. It was my experience, the lack of appreciation of the complexity of the pilot's problem led to the frequent radio contacts employed or desired by ground units. They used up valuable observing time and resulted in an inefficient or unbalanced search of the area. It was somewhat similar to asking a ground force officer to make accurate observations, operate a radio on two or three channels, have two different people give him instructions by radio, all while under enemy fire and driving a vehicle over difficult terrain at forty miles per hour.

The other element which effects the reporting of Tac R observations deals with the type and location of information obtained in the corps reconnaissance zone. It was found in our necessarily high-speed reconnaissance aircraft the pilot could not pick up front line elements. Neither could he make worthwhile sightings for several

thousand yards beyond them. This is logical as movements or concentrations in this vicinity large enough to be picked up by high-performance aircraft were not only under observation from air or ground OPs but were also within artillery range.

Even beyond artillery range there are many days when not a single sighting in itself was important, and consequently each, as such, was not of immediate interest. It is my opinion (and prisoners of war consistently confirmed this theory) the chief value of Tac R on these days is that it forces the enemy to restrict his movements to his hours of darkness. Some traffic was always present, however, and a careful study of these many small items showed trends at least. Coupled with other intelligence data their value was enhanced materially. The real payoff by Tac R came when either side launched an offensive or was forced to undertake a retrograde movement. The neccessary action or reaction to the situation demanded movement of reserves and reinforcements, or the withdrawal of elements in bodies large enough to be spotted by Tac R. Many offensives and counter-attacks were sighted deep enough in enemy territory by Tac R and completely nullified by fighter bombers before their effect could be felt by ground units. Similarly the location and destruction of withdrawing columns alleviated the burden of fighting the same troops over and over again.

Keeping in mind the pilot problem, and the type and location of Tac R sightings let us examine a method of reporting information obtained. It was my experience that unless an unusual situation arose,

talking to the pilot-observer in flight detracted from his efficiency and used up valuable observing time. In the majority of cases it yielded nothing that was of any more value than if received an hour or two later, after landing and proper interrogation. In cases where worthwhile targets were observed or important sightings made, pilots were directed to notify the tactical air control center immediately. This permitted the tactical air control center to dispatch the closest airborne fighter bombers to attack the target. In addition to getting fighter bombers on the target quickly, this had another advantage. The tactical air control center immediately notified the Army G-2 Air who was in the next room or tant. He, in turn, passed the information to corps by telephone. If applicable, the corps passed the information to division. The whole process was accomplished in a matter of minutes and all interested parties were informed. After notifying tactical air control center of an important sighting, the pilot passed the same information to corps by radio. This provided corps with intelligence information in the event wire lines rearward were inoperative, but did not always give the information of the action taken by the tactical control center to engage the target. When no important sightings were made, the pilot proceeded on his mission and made a full report after landing, when interrogated by the S-2 and the ground liaison officer. This complete report was telephoned to the Army G-2 Air and then to the corps concerned. It was rarely received by VII Corps more than two hours after the mean time over the area.

Only the more important sightings were transmitted to adjacent corps at this time. Similarly only important sightings in the army zone were sent to all corps of the Army. At the end of each day the Army G-2 Air compiled a summary of all sightings in all of the reconnaissance areas covered by the tactical air command concerned. This was transmitted by teletype to the G-2s of all corps. It usually reached us about 2300 hours. Each sighting was then plotted on a map and the whole analyzed in time to be summarized in the G-2 periodic report.

This system proved very effective, and the practice of direct communication between the pilot-observer and the Corps G-2 or the air support party became the exception rather than the rule. However, there is no intent to discourage necessary plane to ground communication or to eliminate provisions for it. There were periods when practically every mission was redirected after it became airborne. The crux of the matter is that frequent conversation does not constitute close or effective support, as was often supposed.

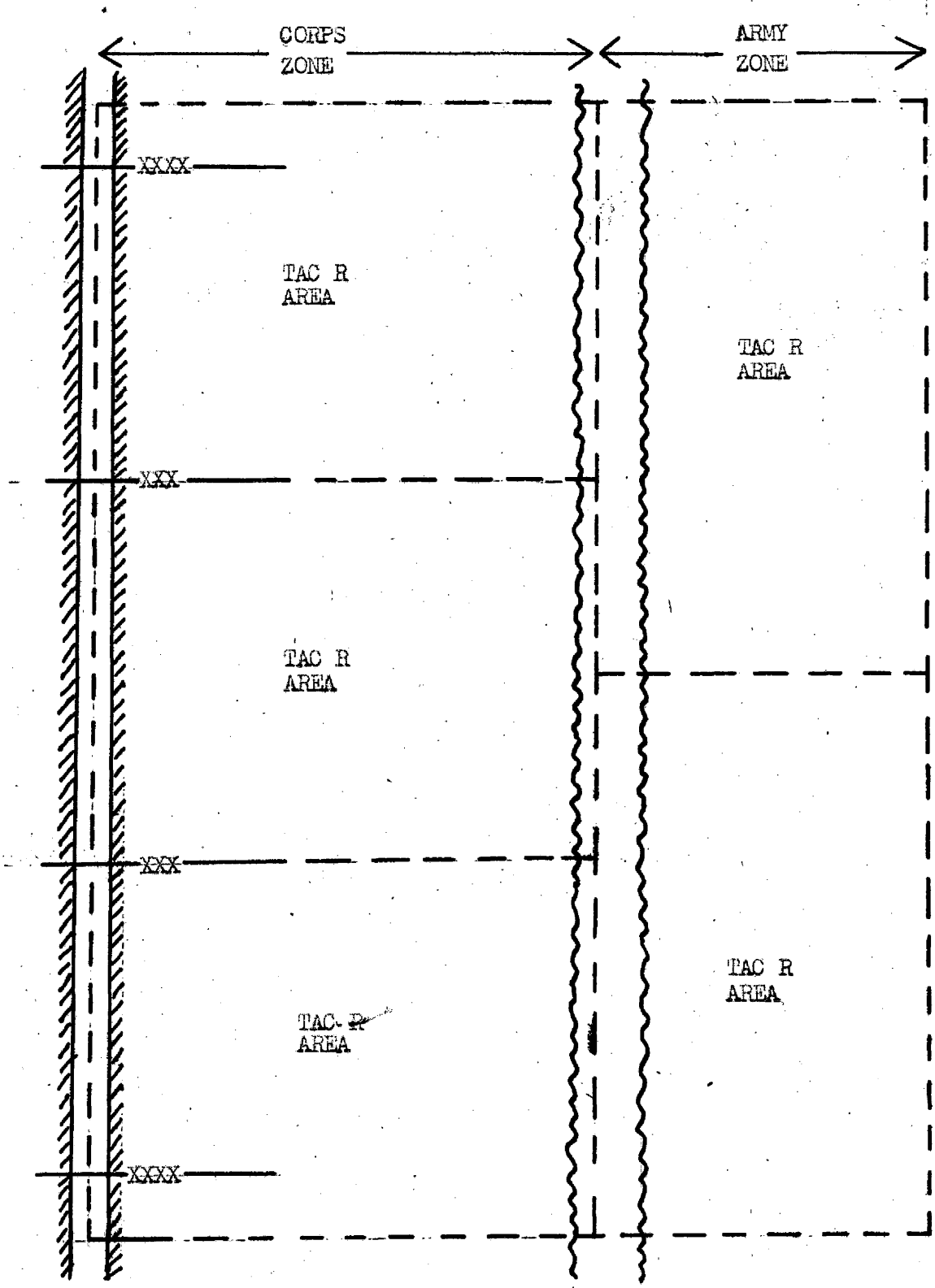
CONCLUSIONS

Of the three basic types employed by Tac R, area search proved to be the most economical in aircraft and the most practicable from a planning and standardization aspect. It likewise was better suited to the needs of front line units than was the route search method. As it was simple and flexible as it permitted quick shifts to either of the other two types when desirable.

Because of the complexity of the pilot problem, unnecessary radio communication with the pilot materially reduced his ability to support the ground unit. The type of sightings or their distance from the front lines depreciate the necessity of immediately reporting much of the information obtained.

Combining all these features, I believe it is obvious that the corps is the lowest unit that can have direct Tac R support under conditions similar to those in Europe. This is particularly true with respect to division and corps frontages, and plane strength. This concept was upheld by exhaustive studies and after action reports. However, a realization of the gap in aerial reconnaissance immediately beyond the front lines has led to the assignment of seven liaison type aircraft in the infantry division and twelve in the armored division, in addition to those organic in their artillery elements. These liaison type planes coupled with armed reconnaissance and column cover by fighter bombers should fill this gap.

Not only has Tac R replaced corps and army cavalry as the agency for deep reconnaissance, but in addition it is one member of a "two man" team (the other, fighter bombers) which locates and either destroys or neutralizes enemy threats before front line elements are aware of their existance.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