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Common Battlefield Training for Airmen

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Summary

For this monograph, we conducted three separate but connected analyses in support of developing combat training for airmen. In the first analysis, we evaluated a proposed CBAT standard for Air Force specialties that routinely operate “outside the fence” against their current training programs.¹ In the second analysis, we used the results of our CBAT evaluation to build a strawman CBAT POI. We then used the RAND Schoolhouse Model to estimate the required resources. Finally, in the third analysis, we surveyed previously deployed “inside the fence” specialties to develop a list of incidents faced when deployed to high-threat environments. Using these incidents and training experts, we were able to develop a requirement for CBAT companion training for the “inside the fence” specialties.²

The first two analyses are specific to proposals developed in 2005 and early 2006.³ The third analysis is concept-independent and is valuable for any proposal for combat training of non-ground combat personnel.

CBAT Independent Evaluation Analysis

We developed three model courses that satisfied the training requirements for CBAT,⁴ based primarily on training materials from the SF, CCT, or PJ curricula.⁵ The estimated duration of each course exceeded a specified 25-day maximum. We therefore developed a fourth, minimum-duration course that satisfied the CBAT proficiency requirements for each task by

¹ Air Force personnel use the phrases *outside the fence* and *outside the wire* (OTW) interchangeably to indicate operations outside the defended perimeter of an Air Force installation. *Outside the fence* is more common at the Air Staff level. Focus group participants with deployment experience used *outside the wire*. Part of this difference may be due to the use of wire to demarcate the perimeter at deployed locations instead of the fences typical at an Air Force main operating base.

² *CBAT companion* is what the Air Force calls a just-in-time training program that it envisions non-ground combat personnel attending prior to deployment.

³ At the time of our research, CBAT was a mature idea and the Air Force was not interested in a study of the relative value of CBAT or whether “common” training was even a good idea. The Air Force was attempting to implement CBAT immediately; therefore, the client’s primary interest was in the resource requirement. Since then, CBAT has changed dramatically. Still, the first two analyses will have value if the older plans, or something like them, are revisited.

⁴ The original CBAT course training standard was developed by the Air Staff Battlefield Airmen Integrated Product Team.

⁵ The CBAT program itself is intended for the following specialties: PJ, tactical air control party (TACP), CCT, BWT, SF, EOD, and SERE personnel.

using the standard of the specialty that supplied the fewest training hours. For the most part, the standards of the SF training curriculum met these requirements.

Developing these four models allowed us to accomplish two related goals. First, we determined the feasibility of providing the specified CBAT elements within a specified 25-day time frame. We found that only a course based primarily on the SF training curriculum will satisfy the specified 25-day duration.⁶

Second, for each AFSC, we identified the tasks and skill areas for which CBAT will provide training enhancements (i.e., where it will provide training of longer duration or to a higher standard than what each AFSC currently provides), those for which CBAT specifies less training than would ordinarily be provided in initial skills training (IST), and those for which further training in IST will be required to reach the proficiency for skill level 3. Generally, these proficiency deferrals are concentrated within the PJ and CCT specialties. Table S.1 summarizes the effect on all seven AFSCs using the minimum-duration model.

For the CBAT course to achieve the goal of improving combat preparedness over the short and long terms, members of these career fields will require continuous (if only periodic) refresher training and evaluation in combat tasks. If the combat skills learned in CBAT are to remain relevant to the readiness of individuals and units, the amount and frequency of training required to maintain established proficiency levels must be developed. This might be accomplished by employing the refresher training timetables the SF, CCT, PJ, and TACP specialties currently employ.

Table S.1
General CBAT Course Enhancements and Deferrals

| Training Area | CBAT-Provided Training Enhancements | CBAT Does Not Change | Full Proficiency Deferred to IST |
|-----------------------------|-------------------------------------|----------------------|----------------------------------|
| Weapon proficiency | Weather, EOD, SERE, SF | TACP | PJ, CCT ^a |
| Field training | Weather, EOD, SERE | SF, TACP | PJ, CCT |
| Navigation | Weather, EOD, SERE, SF | | PJ, CCT |
| Self-defense | Weather, EOD, SERE, PJ, CCT, TACP | SF | |
| Physical training | Weather, EOD, SERE, SF, TACP | | PJ, CCT |
| Medical | Weather, EOD, SERE, TACP | SF, CCT | PJ |
| Communications ^b | | EOD, SF, PJ, SERE | CCT, TACP, weather |

^a SF defers weapon safety.

^b Potential for radio cross-training.

⁶ RAND provided the Air Staff a limited-distribution document containing an analysis of CBAT without the 25-day limitation. Appendix B summarizes that analysis. If a CCT standard is used, 38 eight-hour days are required; with a PJ standard, 37 eight-hour days are required. The 25-day limitation was specified by senior leadership.

CBAT Resource Estimate Analysis

Using the minimum-duration model discussed above, we developed a strawman POI, which we then entered into the RAND Schoolhouse Model to compute the resources required to run a CBAT course. We ran the model at tier-1–only input levels of 1,200 and 6,600 graduates per year and at a tier-2 input level of 6,600 graduates per year.⁷ Table S.2 shows the results. We could not estimate requirements for the CBAT companion course because no course outline or training standard existed at the time.

CBAT Companion Training Survey Analysis

We surveyed 108 previously deployed tier-3 personnel about their deployment experiences.⁸ From these data, we compiled a list of 400-plus threatening and potentially threatening

Table S.2
Comparison of CBAT Requirements for the Two Cases

| | Graduates per Year | |
|--|---|---|
| | 1,200 | 6,600 |
| Dormitories (no.) | 1 | 3 |
| Instructors (no.) | 40 | 191 |
| Maneuver space (acres) | 1,040 | 3,640 |
| Additional space for | | |
| Gyms (no.) | 1 | 4 |
| Firing ranges (no.) ^a | 4 | 16 |
| Classrooms (no.) | 4 | 14 |
| Military operations on urban terrain (no.) | 1 | 4 |
| Road systems (no.) ^b | 1 | 3 |
| Administration | Building Vehicle parking Ammunition storage | Building Vehicle parking Ammunition storage |
| Kit storage (no. of kits) | 1,700 | 4,000 |

^a Each with 15 firing points.

^b For mounted movement.

⁷ Tier-1 specialties are the original enlisted CBAT specialties: PJ, CCT, TACP, and BWT. Tier-2 specialties add SF, EOD, and SERE.

⁸ Tier-3 specialties are all other specialties not referenced in tiers 1 and 2. Tier-3 specialties are also referred to as the *non-ground combat* or *inside the fence* specialties.

incidents. With the help of AETC subject-matter experts, we grouped these incidents into training categories to produce a justifiable requirement for CBAT companion training.

Table S.3 shows the proportion of “inside the fence” personnel who went OTW while deployed to Iraq, Afghanistan, Kuwait, or other locations. The survey showed that 60 percent of deployed tier-3 personnel went OTW at one time or another.

Given the results of the survey, RAND recommends that training provided in a CBAT companion course for tier-3 personnel

- be provided to all tier-3 personnel deploying to combat locations or to other locations where they may receive orders to deploy to a combat location (e.g., personnel deploying to Germany who may be called on to travel to Iraq)
- include a minimum of ten days of training time
- cover all categories individual subject-matter experts identified in their sorting or that the material from the Lessons Learned Database suggested⁹
- refer to and apply the examples and incidents collected in this study
- involve realistic field simulations or other creative training solutions
- apply integrated rather than sequential training of several categories
- be updated regularly using short, open-ended response surveys of all personnel returning from deployments.

Table S.3
Personnel Going OTW, by Deployment Location

| Deployed Location | Sample Size (no.) | Going OTW | |
|-------------------|----------------------|-----------|---------|
| | | Number | Percent |
| Iraq | 64 | 31 | 48 |
| Afghanistan | 12 | 8 | 67 |
| Kuwait | 36 | 32 | 89 |
| All locations | 108 | 65 | 60 |

NOTE: Some individuals in the sample had been deployed to more than one location and are thus represented in more than one place. “All locations” includes deployments to Iraq, Afghanistan, Kuwait, or any other location (e.g., Southwest Asia, Qatar, no location reported).

⁹ Headquarters Air Force, Lessons Learned Division (AF/A9L), maintains the Air Force Lessons Learned Database, which is intended to exploit Web-based technologies to improve the after-action reporting process and its use by Expeditionary Air Forces.

Future Work

The next step in CBAT implementation is to develop a CBAT companion course training standard and a strawman POI. We could then use the RAND Schoolhouse Model to estimate training resource requirements for both the CBAT and CBAT companion courses. At that point, we would have a better estimate of the full land area and facilities required—a prerequisite for selecting a location for training.

Additionally, while this monograph was being prepared, the Air Force began work to increase basic military training by ten days. Most of the increase is for foundational training in combat-related items. This increase in basic military training will therefore likely reduce the training CBAT and the CBAT companion course must provide. In turn, this will affect the total resources required for a CBAT campus, or campuses, depending on the training approach taken. The effects of these curriculum changes warrant further analysis.