

# Breaking With Tradition

**T**raining for Air Traffic Control (ATC) is taking on a new twist at Marine Corps Air Station New River. Air Traffic Control is a complex, demanding specialty which requires constant practice to maintain proficiency as well as intense training to become initially capable. Aviators place their lives in the hands of these Marines. Marine ATC consists of two distinct, equally important entities: Station ATC and Tactical ATC. Station ATC Facilities provide the vitally important function of specialty. Station ATC facilities exist only to provide the Fleet with capable and competent controllers within a reasonable time frame.

From 1993 to the present, like many other occupational specialties, Marine ATC experienced a severe reduction in manpower. In 1994, the Marine Corps had an on-hand strength of over 800 Air Traffic Controllers. This number decreased to only 600 controllers in 1997. Attrition from the ranks of Marine ATC is a serious problem. The Federal Aviation Administration (FAA) began to hire 800 to 1000 controllers. In addition, the recent privatization of smaller FAA facilities, with less restrictive hiring guidelines, will further tempt qualified Marine controllers from the ranks. MCAS, New River experienced a reduction in manpower, from 91 controllers in 1994, to only 62 in late 1997. Of the 62 controllers on hand, only 48 were qualified controllers. The



other 24 were students without a Military Occupational Specialty (MOS). This snapshot view of New River is paralleled throughout Marine Corps ATC landscape.

A school-trained controller is incapable of effectively controlling aircraft at any ATC facility, and is of no use to the fleet until he receives additional on-the-job training. The Marine Corps averages from 19 to 36 months of training to provide controllers with the skill required to receive a Control Tower Operator certificate. The Air Force and the Navy report an average of 9 to 12 months of proficiency training. The Corps is receiving only 12 to 21 months return on investment for a 4 year enlistment.

The reduction of the availability of qualified controllers, along with the extended length of training time is frustrating and significantly impacts the morale of controllers who must endure it. The serious shortage of manpower, compounded by an overabundance of student controllers was leading to a rapidly deteriorating lose-lose situation. Frustration on the part of the students, and frustration on the part of the instructors was common place. Years of training were being invested in students with little in the way of return on investment. Our ATC was slowly becoming inflexible and having difficulty responding to customer needs. A Process Improvement Team (PIT) was charted by MCAS, New River's Executive Steering Committee (ESC) in April of 1997. The PIT was composed of personnel from various facets of the ATC department as well as the process owners.

Its assignment was to "reduce the time for certification for students." Several TQL tools were used to look at the ATC certification process at MCAS, New River. The PDCA (Plan Do Check Act) process improvement model was used. Base line data was collected and flowcharted the "as is" processes. The "as is" sub-processes associated with ATC certification were also flowcharted.



Initially, in an effort to reduce the training time, New River ATC instituted sweeping changes to the training program. Due to these changes, MCAS New River's training program was identified as the "model" for Marine Corps Air Bases East (MCABE) during a recent quality assurance inspection. The best instruction in the world, however, is useless if a student is not present to learn. The PIT discovered that the major cause in the lengthy certification processes was redundancy of instruction. This redundancy of instruction was caused by the students' "stop and go" training routine. The Marine Corps average of 30 hours per month per student of "additional military duties" such as working parties, rifle range, Physical Fitness

Tests (PFTs), parades and special details was impeding the students' ability to become certified more expeditiously. By the time the students resumed their training, they had to retrace, backtrack or even start over just to get back to where they were in the training syllabus. Valuable training time was being lost.

The PIT recommended to the ESC that "additional military duties" be suspended for all students until they become certified. In addition, it was recommended that the same consideration be given to the instructors for one year to enable MCAS, New River's training program to get on the front side of the power curve. The student controllers are exempt from all military duties except for Physical Fitness Training, Basic Skills Training, and watch standing duties, with the exception of Duty NCO and Duty Clerk. The intent of the exemption is to ensure that training time for controllers is uninterrupted and concentrated, thus resulting in increased rates of qualification by reducing total training time for a new student. Not without precedence, Marines attending formal schools and Marines in some other technical MOS's are excused from other additional military duties in order to make the most productive use of training time. The concept for new controllers is the same: They should be in a school environment until they attain their Military Occupational Specialty (MOS). In August of 1997, the ESC decided to support the PIT's recommendations. It took the risk and empowered the PIT to implement their plan for one year. The PIT was directed to report to the ESC on a quarterly basis.

The PIT's recommendation was in non-accordance with a Marine Corps Order. However, being designated a Reinvention Laboratory by the Secretary of the Navy empowered the Commanding Officer with authority to waive the Marine Corps Order because it was not based in law. Results of the new training

process have been phenomenal. A win-win result has been realized in the following areas:

1. Quicker certification for students because of shorter, more intense training time. Projected figures indicated that instead of requiring an average of 740 calendar days of training for a certified ATC radar controller, the time is reduced 32% to 509 calendar days. A similar reduction in training time for tower certification is projected at 25% from 701 calendar days to 503 calendar days. This time in calendars is the duration from check-in to New River ATC through certification.

2. A much better return on investment for the Marine Corps. Instead of receiving only a 12 to 21 months return per Marine, it is anticipated that the numbers will be much higher. A savings of 5725 calendar days of training per year are projected. This is equal to 15.7 man years. The dollar equivalent for manpower saved at MCAS New River is projected to be \$440,452. This figure includes pay for students computed at E3 and for instructors computed at E5. If this improved process were to be implemented throughout the Marine Corps' ATC facilities, the savings would total \$3,389,069!

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4. ATC Marines will be able to perform in the capacities of tower controller and radar controller. Cross training of personnel is occurring. A significant improvement is noted when comparing the corps training qualifications "as is" base line data from 1996 and 1997 to the new process or the "to be" process. Projected numbers for one year are 34 cross-trained qualifications as opposed to only 7 cross-trained qualifications doing it the "as is" way.

5. More capability and flexibility will be evident. MCAS, New River will be more able to respond to its customers' needs.