

# ONLINE CADET ACHIEVEMENT TESTING

## A BETTER SYSTEM FOR CADETS & THEIR SQUADRONS

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### **INTRODUCTION: IT'S TESTING NIGHT AT CURRY CADET SQUADRON**

You're 14 and you love CAP. Pass one more test and you'll be promoted to C/A1C. That's a huge motivator. It's testing night, so you're excited. But your mean English teacher pours on the homework. Will you put school first, spend hours reading *Catcher in the Rye*, as assigned, and skip the CAP meeting? Like most squadrons, yours offers testing just once a month. If you don't test tonight, you'll have to wait 4 weeks for the next opportunity. Or, will you choose not to read *Catcher*, and instead put CAP ahead of school?

Why does CAP put cadets in this position? How many cadets are not advancing because the testing schedule is inconvenient? How many cadets have dropped out of the program because they were not advancing?

You are the new testing officer. Wanting to do the job right, you inventory the files and see some tests are outdated. You call National to place an order. National asks you to fax your request in writing, as required by regulation. That's one more thing to do in your busy day, but somehow you remember. The registrar pulls up your unit's CAPF 53 and sees there is no record of you being named testing officer. You'll need to get your commander to update the CAPF 53 before National sends you new tests. This further delays your order and complicates your life. Somehow you get the form updated in time and National rushes you the tests. But come testing night, hardly any cadets are present. Apparently they were slammed with homework. How frustrating it is to think of all the effort you made for such little return.

There has to be a better design for a cadet testing system.

#### **Why not allow testing every week?**

Some units allow testing at every meeting, but many find that impractical because (1) it requires a testing officer to be available all the time, (2) it pulls the cadet out of other activities, and (3) promotions are harder to manage with each cadet running on their own cycle.

#### **Why not just cut the regulation's red tape?**

In a paper-based system, some safeguards along the lines of what we have now are necessary.

## OUR PROPOSAL: PUT CADET ACHIEVEMENT TESTS ONLINE

After considerable thought, and after discussing the challenges posed by the current cadet testing system with scores of officers across the nation, the Cadet Team at National Headquarters is convinced that it is time for cadet achievement tests to move from a squadron-administered, paper-based system to an online system. Because such a move departs from a longtime staple of cadet life, and could be met with resistance, *we offer this paper to help explain our thinking and build a consensus for change.*

Let's begin by comparing how the current paper-based system operates with how an online system might operate:

	CURRENT PAPER-BASED SYSTEM	PROPOSED ONLINE SYSTEM
1	Cadet tests only when the unit schedules testing	Cadet tests at own convenience
2	Squadron could accidentally administer the wrong test	Software ensures cadet takes the right test
3	Squadron might not have current edition of test in inventory	Software ensures the cadet receives the current edition
4	Cadet takes the one and only version of the test, making it easy to game the system by memorizing the answers (a, c, d, c...)	Software randomizes the test questions, pulling them from a sizable question bank, making it harder to game the system
5	Squadron must maintain and safeguard test inventories	Software maintains and safeguards achievement test inventories
6	Squadron must follow cumbersome process to request new tests	Software makes it unnecessary for squadron to order new achievement tests
7	Squadron must correct tests by hand, which can be difficult to complete the same night cadets test	Software corrects tests and provides cadets with instant feedback
8	Squadron must update cadets' records after each test	Software updates cadets' records after each test, via new online promotion system
9	Squadron must devote about 1 hour to testing each month	Cadet tests at home, thereby freeing up about an hour each month for more exciting activities
10	Cadets could accidentally or intentionally "bank" tests, despite policy against it	Software prevents test banking
11	Test is written at the knowledge level - the lowest step in the cognitive taxonomy; standards are low	Tests are written at the comprehension level to help compensate for their being open book; standards are raised
12	Tests are closed book	Tests are open book, due to their being taken outside the squadron meeting
13	Tests have no time limit	Tests have reasonable time limit, to help compensate for their being open book

### Personal Note

Five years ago, when CAP began putting some tests online, I was against doing that for cadet tests. After all, I grew up in a closed-book, paper-based system. But as I listed the pros and cons and discussed them with scores of members, I came to believe online tests are the way to go.

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| 14. | Squadrons can not easily see trends in how cadets perform on tests and individual test questions | Software makes it easy to datamine, analyze trends, and adjust teaching methods accordingly |
| 15. | National can not update tests and fix trouble spots easily                                       | National can update tests better, faster, and cheaper                                       |
| 16. | We have always done it this way  | Embraces technology   |

The more our team considers these pros and cons, the more we become convinced that electrons beat paper every time. As we share this list at conferences, most members (90% or better) agree with our overall goal, but have questions about the nitty-gritty in how the online system would operate. Here’s a list of common questions and our (tentative) answers:

## TEST ADMINISTRATION

### **Our squadron does not have a computer lab. What are we to do?**

Almost all cadets would take their tests at home.

### **What if the cadet does not have a computer?**

Cadets could test at school, the library, a friend’s house, or if necessary, the testing officer could print a hard copy and proctor the test at the squadron.

### **Would online tests be used in School Enrichment Program squadrons?**

Like “traditional” units, SEPs could test online, or print hard copies.

### **Some cadets have trouble reading and need oral tests. What about them?**

Friends and parents can help the cadets as they take online tests at home. Or, testing officers could print a hard copy and administer the test orally at the squadron. Commanders retain the authority to make reasonable accommodations for students who have learning disabilities.

### **What would stop a cadet from having someone else test for them?**

Such an arrangement would be possible, but we believe it would happen infrequently. Most people are generally honest. Moreover, the Cadet Program aims to teach “Integrity First,” so good leaders could use the testing program to instill the Core Values. If cheating becomes rampant, that will alert us to the terrible news that CAP is failing to produce responsible citizens. But, these are CAP cadets we are speaking of, and they deserve our confidence. Still, as discussed in the next paragraph, a safety valve is available in how we handle milestone exams.

### **Would milestone exams go online, too, or just achievement tests?**

We are proposing that only achievement tests go online. Milestone tests –

the Wright Brothers, Mitchell, and Earhart – would continue to be paper-based and administered at the squadron. Such an approach adds a certain formality or “specialness” to those important comprehensive exams. If a dishonest cadet games the system by having another take their achievement tests, they will have put themselves at a disadvantage when it comes time to sweat through the closed-book, paper-based milestone exam.

**How does this proposal affect the Spaatz Award exam?**

CAP-USAF would continue to administer the Spaatz via an online system.

**TEST DESIGN**

**Will the passing score for achievement tests stay at 70%?**

Because tests would become open book, it seems fair to raise the passing score to 80%, corrected to 100%.

**Would tests remain multiple-choice?**

Most questions would, but we might introduce some matching questions, and somewhere down the line, we could use multimedia more. But essay and short answer questions are definitely not being considered because they require manual grading.

**What happens to the drill performance sections on the leadership tests?**

Drill performance tests would remain part of the program. Of course, cadets would take these the “old fashioned way.” There’s no escaping that.

**Would there be a time limit for completing each test?**

Yes, but the specifics are still to be decided. Our initial thought is to allow cadets a half-hour to complete a 25-question achievement test, but we want to see what the field tests tell us. Of course, we are especially mindful of how time limits affect students who have learning disabilities.

**TESTS & PROMOTIONS**

**Tests are a huge factor in promotions. If tests are open book, does that mean that promotions are virtually “gimmies”?**

Passing tests merely makes cadets *eligible* for promotion. The true “test” in earning a promotion is whether the cadet’s leadership performance shows they are ready for the bigger and better challenges that accompany another stripe. Squadrons should use the “Leadership Expectations” chart found in CAPR 52-16, as well as leadership feedback meetings (the CAPF 50 process) to determine if the cadet is ready to advance. See CAPP 52-15, *Cadet Staff Handbook*, sections 2.6 and 2.7 for more on this concept.

## **FEEDBACK MECHANISMS**

### **What happens when a cadet passes a test?**

The computer will instantly provide the cadet with feedback about the sections they missed. The cadet then corrects their test to 100%, open book, with no time limit. The software automatically updates the cadet's online record, using the new online cadet promotions system, and alerts the senior staff of the good news. (For more about how these online systems work together and when they will be available, see the "Timeline" section below.)

### **If a cadet fails a test, what will happen, from the cadet's perspective?**

The computer will instantly provide the cadet feedback on the sections they need to re-study. After a 7-day waiting period, the cadet may re-test. This waiting period does two things. First, it prevents a cadet from attempting the test via "trial and error," as they sit in front of the computer punching keys at random. And second, a 7-day waiting period means that a squadron meeting will likely intervene, giving the cadet and a mentor an opportunity to work through the trouble spot together.

### **If a cadet fails a test, what will happen, from the senior's perspective?**

The computer will make the cadet's test results available to any senior member designated by the unit commander. For example, the AEO could receive an alert telling her that Cadet Curry missed a test by 1 question, or Cadet Arnold bombed the test. Moreover, squadrons could datamine and look for trends. Perhaps every cadet has missed the question about Bernoulli and more time needs to be spent explaining it.

### **What is planned for cadets who fail a test multiple times?**

Upon failing a test twice, the software will provide feedback, as usual, and then lock the cadet out, preventing them from retesting. The senior staff is alerted electronically, prompting them to increase their mentoring efforts. The cadet is not permitted to retest until the testing officer manually resets the system – call this a "TCO Reset." But before the TCO Reset, a good squadron will have a mentor sit down with the cadet and figure out what the problem is. If a cadet continues to fail the same test, additional TCO Resets, and further mentoring, are required to regain access to the system.

### **What sorts of reports would we have access to?**

This remains an open question, depending on what the field testers have to say. Some possibilities include: (1) Cadets who recently passed tests (2) Cadets who recently failed tests (3) Cadets who have not tested in the past month and (4) Squadron's average score compared to the national average score, for a given test.

## TIMELINE: WHEN THESE IDEAS COULD TAKE EFFECT

If you are like most people we brief this proposal to, you're saying, "Make this available now!" We hope so. But our team is tiny, and these improvements will take time. Moreover, like a jigsaw puzzle, there are multiple pieces that have to come together. Here's our *initial* plan, subject to change.

### Board Approval

This paper outlines our proposal and invites comment. Board approval would be needed to switch to online tests.

<b>Online Cadet Promotions</b>	Basic system launches by Spring 2008 System essentially automates CAPF 52's & CAPF 66 At first, squadrons manually input cadet test scores See flowchart at <a href="http://cap.gov/provinggrounds">cap.gov/provinggrounds</a>
<b>Learn to Lead Textbook</b>	2008 Leadership curriculum is being totally overhauled See paper at <a href="http://cap.gov/provinggrounds">cap.gov/provinggrounds</a> 2009 New achievement tests created for new text and new curriculum is officially published
<b>Online Testing</b>	2008: Member input invited, via this paper 2008: Seek National Board or NEC approval 2008: Software development 2009: Implementation to coincide with <i>Learn to Lead</i> textbook and new leadership tests
<b>Online Cadet Promotions</b>	Upgrade in 2009 (Software will automatically update cadet records to show test results; no more manually inputting test scores for achievement tests)

## CONCLUSION: CADETS WIN, SQUADRONS WIN

Remember our example of testing night at Curry Cadet Squadron? If achievement tests go online, our C/Amn need not choose between taking his CAP test and reading *Catcher in the Rye* for school. He can test at his convenience.

Testing officers need not wrestle a regulation to obtain testing supplies. They can focus their energy on mentoring cadets. That's where the cadets really need their efforts, plus it's more rewarding.

Every way we look at this issue, electrons are beating paper.

Give this proposal some thought. Share your ideas with your wing DCP who will, in turn, give us feedback. Stay tuned to [cap.gov/provinggrounds](http://cap.gov/provinggrounds) to see what else is in the works. Thank you for continuing to support the cadets.