

# MODERNIZED TARGET ACQUISITION DESIGNATION SIGHT (MTADS) PRACTICE EXAM (SAMPLE) STUDY GUIDE



## SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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THE FULL VERSION STUDY GUIDE

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# Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- Practice answering questions under realistic conditions,
- Improve accuracy and speed,
- Review explanations to strengthen weak areas, and
- Approach the exam with greater confidence.

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

# How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here's how to get the most out of your Examzify study guide:

## 1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.

## 2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.

## 3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

## 4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

## 5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

## 6. Repeat and Review

Don't just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There's no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!

## Questions

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- 1. Which of the following is active five seconds after pressing the AZ/EL button?**
  - A. The AZ and EL switches become active
  - B. The RFI cursor becomes unlocked
  - C. The TADS performs a self-check
  - D. The display dims
- 2. Which statement best reflects a typical MTADS designation training objective?**
  - A. To improve flight speed over target accuracy.
  - B. To minimize training in target recognition and designation skills.
  - C. To practice designation with no regard to safety protocols.
  - D. To improve target recognition speed, designation accuracy, proper cue application, and adherence to safety protocols.
- 3. Which statement best describes MTADS laser safety during designation?**
  - A. It requires proper authorization and limits emission to designated engagement windows, with hazard warnings when applicable.
  - B. It can be ignored in non-combat scenarios.
  - C. It emits at full power regardless of window.
  - D. It uses automatic authorization without human confirmation.
- 4. SBIT for MTADS begins at power-up and tests for approx. \_\_\_\_\_ seconds.**
  - A. 30
  - B. 20
  - C. 40
  - D. 50
- 5. Which sensor is boresighted first during an internal boresight?**
  - A. The DTV
  - B. The FLIR
  - C. The Radar
  - D. The TGT/NAV

- 6. What is a typical MTADS fault isolation check?**
- A. Inspecting the pilot's manual control inputs.
  - B. Performing a full software rebuild without diagnostics.
  - C. Inspecting video, laser status, alignment references, data link, and system diagnostics to isolate the faulty component.
  - D. Only checking the data link status.
- 7. What is the immediate system response after proper laser energy acquisition by LT?**
- A. Laser tracking hardware takes over turret control and auto-tracks around the laser energy spot.
  - B. The LT energy is stored for later use.
  - C. The system resets the tracker to a default position.
  - D. The TADS immediately closes the sight path.
- 8. In MTADS, which crew member primarily handles TADS and laser designation?**
- A. Gunner
  - B. Pilot
  - C. Navigator
  - D. Commander
- 9. What sights are available to the CPG?**
- A. TADS
  - B. TADS, FCR, HMD
  - C. FCR
  - D. HMD
- 10. Which weapons typically integrate with MTADS target designation?**
- A. Unguided bombs
  - B. Laser-guided munitions such as Hellfire and Mavericks
  - C. Nuclear missiles
  - D. Gun ammunition only

## **Answers**

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1. B
2. D
3. B
4. A
5. A
6. C
7. A
8. A
9. B
10. B

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## **Explanations**

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1. Which of the following is active five seconds after pressing the AZ/EL button?

- A. The AZ and EL switches become active
- B. The RFI cursor becomes unlocked**
- C. The TADS performs a self-check
- D. The display dims

*When you press the AZ/EL control, the system begins a transition into azimuth/elevation mode and allowed stabilization sequence. About five seconds later, the RFI cursor becomes unlocked, which is when you can freely move the targeting cursor to designate a point. This delay is intentional to let the gyros and sensors settle so cursor positioning is reliable for target designation. The other options don't match what happens in that specific transition: the AZ/EL switches don't suddenly become active five seconds later, a self-check is something that occurs during power-up or system checks rather than after pressing AZ/EL, and the display dimming isn't tied to this AZ/EL transition.*

2. Which statement best reflects a typical MTADS designation training objective?

- A. To improve flight speed over target accuracy.
- B. To minimize training in target recognition and designation skills.
- C. To practice designation with no regard to safety protocols.
- D. To improve target recognition speed, designation accuracy, proper cue application, and adherence to safety protocols.**

*MTADS designation training tests your ability to quickly see a target, identify it correctly, and mark it with the right cue, all while strictly following safety procedures. This combination ensures you can target accurately and efficiently without compromising safety, which is essential in real-world operations where fast, precise designation matters and safety rules prevent friendly-fire and collateral risk. The best choice captures all these elements—speed in recognition, accuracy in designation, proper cue application, and adherence to safety protocols—so you can perform reliably under pressure. The other options miss important parts: prioritizing speed over recognition and accuracy, or proposing reduced training in recognition and designation, or suggesting designation practice without safety considerations, all fail to reflect a responsible, effective MTADS training objective.*

### 3. Which statement best describes MTADS laser safety during designation?

- A. It requires proper authorization and limits emission to designated engagement windows, with hazard warnings when applicable.
- B. It can be ignored in non-combat scenarios.**
- C. It emits at full power regardless of window.
- D. It uses automatic authorization without human confirmation.

*Laser designation safety for MTADS is about controlled and authorized use, with emissions limited to clearly defined engagement windows and visible hazard warnings. The system is designed to prevent accidental exposure and to keep all personnel and platforms safe, so a laser can only be used when there is explicit authorization and when operations are within the designated times and areas. When the laser is active, hazard warnings alert everyone in the vicinity, ensuring deconfliction and reducing the risk of eye injury or unintended designation. Even in training or non-combat scenarios, safety rules apply and laser use is not something that can be ignored. Procedures, checklists, and oversight remain in place to prevent miscommunication or accidental exposure, and to maintain control over where and when the laser is allowed to operate. Statements that imply full-power, unrestricted emission or automatic, human-free authorization contradict the safeguards built into MTADS laser design and fail to account for the need to protect personnel and non-target assets from unintended illumination.*

### 4. SBIT for MTADS begins at power-up and tests for approx. \_\_\_\_\_ seconds.

- A. 30**
- B. 20
- C. 40
- D. 50

*SBIT begins at power-up and runs long enough to initialize and verify the MTADS subsystems before use. It lasts about 30 seconds, which provides time for the sensor chain (TADS/PNVS), imaging sensor, tracker, laser designator, video processor, and related power and data systems to perform self-checks and establish GO/NO-GO status. If a fault is found, the system signals it and may halt operation until addressed. A duration of about 20 seconds wouldn't give all checks enough time, while 40 or 50 seconds would delay mission start beyond what's standard for this platform; 30 seconds is the defined interval.*

### 5. Which sensor is boresighted first during an internal boresight?

- A. The DTV**
- B. The FLIR
- C. The Radar
- D. The TGT/NAV

*Establishing a single reference axis for all sensors is the main idea here. The DTV provides a clear, stable daylight reference with a fixed optical axis, so it's used first to set the baseline boresight. Once the DTV is aligned to the aircraft's line of sight, the other sensors—like the FLIR, radar, and the target/navigation sensor—are aligned to that same reference. This guarantees that video and targeting cues from all channels line up correctly when you fuse imagery and designate targets. The FLIR and other sensors are then slaved to the DTV reference, which is why the DTV is boresighted first.*

## 6. What is a typical MTADS fault isolation check?

- A. Inspecting the pilot's manual control inputs.
- B. Performing a full software rebuild without diagnostics.
- C. Inspecting video, laser status, alignment references, data link, and system diagnostics to isolate the faulty component.**
- D. Only checking the data link status.

MTADS fault isolation relies on a systematic cross-check of the sensor, laser, alignment, data link, and diagnostic systems to locate the faulty component. In a typical check you verify the video feed for integrity, confirm the laser designator/rangefinder is active and responding, assess alignment references to ensure the sensors are properly calibrated and aimed at the correct target, inspect the data link to ensure target data and control signals are being transmitted correctly, and run the built-in diagnostics to pull fault codes and status indicators. By correlating observations across these areas, you can pinpoint whether the issue is in the video channel, the laser subsystem, the gimbal/line-of-sight alignment, the data link, or the processing electronics. Inspecting only one aspect, like video or data link, would miss other potential fault sources; a full software rebuild without diagnostics ignores the root cause, and focusing solely on the data link misses problems in the other subsystems.

## 7. What is the immediate system response after proper laser energy acquisition by LT?

- A. Laser tracking hardware takes over turret control and auto-tracks around the laser energy spot.**
- B. The LT energy is stored for later use.
- C. The system resets the tracker to a default position.
- D. The TADS immediately closes the sight path.

Once LT energy is properly acquired on the target, the system switches into tracking mode where the laser tracking hardware takes control of turret motion and auto-tracks around the laser energy spot. This servo-driven tracking keeps the designator locked on the target, even if the aircraft or target moves, ensuring the laser stays pointed precisely where it's needed. The energy isn't stored for later use, and there's no default reset or automatic closure of the sight path—the immediate action is to hand the turret over to the tracking system to maintain continuous designation on the target.

## 8. In MTADS, which crew member primarily handles TADS and laser designation?

- A. Gunner**
- B. Pilot
- C. Navigator
- D. Commander

The crew member who handles TADS and laser designation is the gunner. In MTADS, the gunner sits at the sensor/targeting station and uses the TADS to search, track, and designate targets. The laser designator is a key part of that system, allowing the gunner to illuminate targets for laser-guided weapons. The pilot focuses on flying the aircraft and managing overall systems, while the gunner owns the targeting and designating task. This division lets the helicopter engage targets efficiently, with the gunner providing the precise designation the weapons need to home in on the target.

## 9. What sights are available to the CPG?

- A. TADS
- B. TADS, FCR, HMD**
- C. FCR
- D. HMD

MTADS gives the CPG a combined sensor set: the TADS for high resolution imaging and target designation, the FCR for radar search and target tracking, and the Helmet Mounted Display to show sensor data and cues in the crew's field of view. Using all three provides full targeting capability, allowing the CPG to search, designate, and cue weapons effectively. The other options omit one of these essential sensors, so they don't reflect the complete system available to the CPG.

## 10. Which weapons typically integrate with MTADS target designation?

- A. Unguided bombs
- B. Laser-guided munitions such as Hellfire and Mavericks**
- C. Nuclear missiles
- D. Gun ammunition only

MTADS designates targets with a laser beam that guided weapons lock onto and follow to the target. The weapons built to use that laser designation are laser-guided missiles like Hellfire and Maverick, which are designed to home in on the reflected laser energy from MTADS. Because of how they receive and use laser guidance, these missiles are the typical fit for MTADS target designation. Nuclear missiles aren't designed to rely on laser designation from MTADS, and unguided bombs don't use a designator beam to steer them. Gun ammunition is a separate, unguided or internally guided system and isn't designed to be steered by MTADS laser designation.

## Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at [hello@examzify.com](mailto:hello@examzify.com).

Or visit your dedicated course page for more study tools and resources:

<https://mtads.examzify.com>

We wish you the very best on your exam journey. You've got this!

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