



SPECIFICATIONS FOR NEUROPSYCHOLOGICAL EVALUATIONS FOR POTENTIAL NEUROCOGNITIVE IMPAIRMENT

Why is a neuropsychological evaluation required? Head trauma, stroke, encephalitis, multiple sclerosis, other suspected acquired or developmental conditions, and medications used for treatment, may produce cognitive deficits that would make an airman unsafe to perform pilot duties. This guideline outlines the requirements for a neuropsychological evaluation.

Who may perform a neuropsychological evaluation? Neuropsychological evaluations must be conducted by a licensed clinical psychologist who is either board certified or “board eligible” in clinical neuropsychology. “Board eligible” means that the clinical neuropsychologist has the education, training, and clinical practice experience that would qualify him or her to sit for board certification with the American Board of Clinical Neuropsychology, the American Board of Professional Neuropsychology, and/or the American Board of Pediatric Neuropsychology.

Will I need to provide any of my medical records? You should make records available to the neuropsychologist prior to the evaluation, to include:

- Copies of all records regarding prior psychiatric/substance-related hospitalizations, observations or treatment not previously submitted to the FAA.
- A complete copy of your agency medical records. You should request a copy of your agency records be sent *directly* to the psychiatrist and psychologist by the Aerospace Medical Certification Division (AMCD) in Oklahoma City, Oklahoma. For further information regarding this process, please call 405-954-4821, select option “4” (for duplicate medical certificate or copies of medical records), then “3” (for certified copies of medical records).

What must the neuropsychological evaluation report include? *At a minimum:*

- A review of all available records, including academic records, records of prior psychiatric hospitalizations, and records of periods of observation or treatment (e.g., psychiatrist, psychologist, or pediatric neuropsychiatrist treatment notes). Records must be in sufficient detail to permit a clear evaluation of the nature and extent of any previous mental disorders.
- A thorough clinical interview to include a detailed history regarding: psychosocial or developmental problems; academic and employment performance; legal issues; substance use/abuse (including treatment and quality of recovery); aviation background and experience; medical conditions, and all medication use; and behavioral observations during the interview and testing.
- A mental status examination.
- Interpretation of a full battery of neuropsychological and psychological tests *including but not limited to* the “core test battery” (specified below).
- An integrated summary of findings with an explicit diagnostic statement, and the neuropsychologist’s opinion(s) and recommendation(s) regarding clinically or aeromedically significant findings and the potential impact on aviation safety consistent with the Federal Aviation Regulations.

What is required in the “core test battery?” The core test battery listed below provides a standardized basis for the FAA’s review of cases, and must include:

- CogScreen-Aeromedical Edition (CogScreen-AE)
- The complete Wechsler Adult Intelligence Scales (Processing Speed and Working Memory Indexes must be scored)
- Trail Making Test, Parts A and B (Reitan Trails A & B should be used since aviation norms are available for the original Reitan Trails A & B, but not for similar tests [e.g., Color Trails; Trails from Kaplan-Delis Executive Function, etc.]
- Executive function tests to include:
 - (1) Category Test or Wisconsin Card Sorting Test, and
 - (2) Stroop Color-Word Test
- Paced Auditory Serial Addition Test (PASAT).
- A continuous performance test (i.e., Test of Variables of Attention [TOVA], or Conners’ Continuous Performance Test [CPT-II], or Integrated Visual and Auditory Continuous Performance Test [IVA+])
- Test of verbal memory (WMS-IV subtests, Rey Auditory Verbal Learning Test, or California Verbal Learning Test-II).

- Test of visual memory (WMS-IV subtests, Brief Visuospatial Memory Test-Revised, or Rey Complex Figure Test).
- Tests of Language including Boston Naming Test and Verbal Fluency (COWAT and a semantic fluency task).
- Psychomotor testing including Finger Tapping and Grooved Pegboard or Purdue Pegboard.
- Personality testing, to include the Minnesota Multiphasic Personality Inventory (MMPI-2). (The MMPI-2-RF is *not* an approved substitute. All scales, subscales, content, and supplementary scales *must* be scored and provided. Computer scoring *is* required. Abbreviated administrations are *not* acceptable.)

NOTES: (1) all tests administered must be the most current edition of the test unless specified otherwise; (2) at the discretion of the examiner, additional tests may be clinically necessary to assure a complete assessment.

What must be submitted? *The neuropsychologist's report as noted above, plus the supporting documentation below. Recommendations should be strictly limited to the psychologist's area of expertise. Psychologists with questions are encouraged to call Chris Front, Psy.D., FAA Psychologist, at 202-267-3767.*

- Copies of all computer score reports (e.g., CogScreen-AE score report, Pearson MMPI-2 Extended Score Report, TOVA, CPT-II or IVA+ Report).
- An appended score summary sheet that includes all scores for all tests administered. When available, *pilot norms must be used*. If pilot norms are not available for a particular test, then the normative comparison group (e.g., general population, age/education-corrected) must be specified. Also, when available, percentile scores must be included.

What else does the neuropsychologist need to know?

- The FAA will not proceed with a review of the test findings without the above data.
- The data and clinical findings will be carefully safeguarded in accordance with the APA Ethical Principles of Psychologists and Code of Conduct (2002) as well as applicable federal law.
- The raw neurocognitive testing data may be required at a future date for expert review by one of the FAA's consulting clinical neuropsychologists. In that event, authorization for release of the data *by the airman* to the expert reviewer will need to be provided.

Additional Helpful Information

1. Will additional testing be required in the future? If eligible for unrestricted medical certification, no additional testing would be required. However, pilots found eligible for Special Issuance will be required to undergo periodic re-evaluations. The letter authorizing special issuance will outline required testing, which may be limited to specific tests or expanded to include a comprehensive test battery.
2. Useful references for the neuropsychologist:
 - **MOST COMPREHENSIVE SINGLE REFERENCE:**
Aeromedical Psychology (2013). C.H. Kennedy & G.G. Kay (Editors). Ashgate.
 - Pilot norms on neurocognitive tests: Kay, G.G. (2002). Guidelines for the Psychological Evaluation of Aircrew Personnel. *Occupational Medicine*, 17 (2), 227-245.
 - Aviation-related psychological evaluations: Jones, D. R. (2008). Aerospace Psychiatry. In J. R. Davis, R. Johnson, J. Stepanek & J. A. Fogarty (Eds.), *Fundamentals of Aerospace Medicine (4th Ed.)*, (pp. 406-424). Philadelphia: Lippencott Williams & Wilkins.