Agenda

• Introduction - Background
• Organization - Programs
• Safety Data
• Certification Data
• Recent Decisions and Issues
• Questions
Office of Aerospace Medicine

Federal Air Surgeon

Deputy Federal Air Surgeon
- Medical Specialties Division
- Program Management Division
- Drug Abatement Division
- Regional Aerospace Medicine Division

Director, Civil Aerospace Medical Institute
- Aerospace Medical Certification Division
- Aerospace Medical Education Division
- Aerospace Human Factors Research Division
- Aerospace Medical Research Division
- Occupational Health Division

Chief Psychiatrist
Clinical Psychologist
Neuropsychologist
Aerospace Medicine Programs

- Aeromedical Standards
- Airman Medical Certification
- ATCS Medical Clearance
- Substance Abuse/Dependence
- Aeromedical Education
Aerospace Medicine Programs

Research

- Protection and survival of aircraft occupants
- Medical accident investigation
- Toxicology and the effects of drugs on human performance
Aerospace Medicine Programs

Research (continued)

- Impact of disease and disability on human performance
- Human factors of flight crews, air traffic controllers, mechanics, and others involved in the operation and maintenance of aircraft and air traffic control equipment
Safety Data
AVS Safety Performance
GA Fatal Accident Rate
(Fatal Accidents/100,000 Hours)

1.12
3-Year Baseline

- 3-Yr Baseline
- NTE Target - 10% Reduction by FY18
- Actual Rate
- Actual Baseline

FY06 FY07 FY08 FY09 FY10 FY11 FY12 FY13 FY14 FY15 FY16 FY17 FY18
Certification
Airman Medical Certification Review and Appeals Process

- AME
- AEROSPACE MEDICAL CERTIFICATION DIVISION OR REGIONS
- FEDERAL AIR SURGEON
- NATIONAL TRANSPORTATION SAFETY BOARD
  - ADMINISTRATIVE LAW JUDGE
  - FULL BOARD
  - U.S. COURT OF APPEALS
  - U.S. DISTRICT COURT
  - SUPREME COURT
PILOTS BILL OF RIGHTS
Public Law 112-153 112th Congress
(August 2012)

• Notice to Airmen - incorporated in MedXPress
• Letter to Airmen - with every communication
• Appeal rights to US District Court
• Section 4 of law called for GAO review of Medical Certification
Aeromedical Certification (CY 2018)

387,345  Total applications received

<table>
<thead>
<tr>
<th>Class 1</th>
<th>Class 2</th>
<th>Class 3</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>243,987</td>
<td>63,172</td>
<td>80,182</td>
<td>387,341</td>
</tr>
</tbody>
</table>
Aeromedical Certification
(CY 2018)
Special Issuance Certificates Granted

<table>
<thead>
<tr>
<th>Class 1</th>
<th>Class 2</th>
<th>Class 3</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>20,284</td>
<td>5,989</td>
<td>7,538</td>
<td>33,811</td>
</tr>
</tbody>
</table>
Total Applications vs SI by Year

- Total Applications
- Special Issuance

Year: 2014 to 2018

Graph showing the trend of total applications and special issuances over the years.
Myth: Denial Is a Common Event

- 387,341 Applications submitted CY 2018
- 33,811 Special Issuances (8.7%)
- 5,188 Initial denials (1.3%)
- 4,756 failed to pursue (1.2%)
- 432 provided required follow-up but denial sustained (0.1%)
Aeromedical Certification
(CY 2018)

5,188 initial denials (1.3% of all applications)
4,756 failed to pursue or failed to provide requested information

<table>
<thead>
<tr>
<th>Year</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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<tbody>
<tr>
<td>Denials</td>
<td>5,322</td>
<td>4,851</td>
<td>4,568</td>
<td>4,560</td>
<td>5,159</td>
<td>3,613</td>
<td>3,837</td>
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## Special Issuances Categories

*(CY 2018)*

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Cardiovascular</td>
<td>9,258</td>
</tr>
<tr>
<td>Diabetes</td>
<td>5,270 (448)</td>
</tr>
<tr>
<td>Sleep Disorders</td>
<td>6,969</td>
</tr>
<tr>
<td>Cancer</td>
<td>1,481</td>
</tr>
<tr>
<td>Psychiatric</td>
<td>1,367</td>
</tr>
<tr>
<td>Substance use</td>
<td>1,273</td>
</tr>
<tr>
<td>SSRI</td>
<td>421</td>
</tr>
<tr>
<td>Neurologic</td>
<td>557</td>
</tr>
<tr>
<td>Transplants</td>
<td>139</td>
</tr>
</tbody>
</table>
New Process
ITDM Continuous Glucose Monitoring (GCM) Protocol for All Classes

• Initial evaluation requirements
  – 6 months stability on insulin.
  – Initial battery of reports and testing
  – Consider for 12 month Special Issuance

• Recertification
  – See endocrinologist every 3 months
  – Compile CGM data
  – Submit to AME every 6 months

• All cases worked at FAS office
CGM Protocol
Initial Special Issuance (SI) Evaluation
(All Classes)

• Board Certified Endocrinologist Comprehensive Report
• Lab (initial/annual)
• Finger Stick Blood Sugar monitoring (FSBS) data
• CGM data with a device that meets FAA requirements
• Flight times & any actions taken to correct glucose values
• Eye evaluation AND cardiac risk evaluation
CGM Protocol - Recertification  
(All Classes)

• Every 3 months:
  ➢ Report from Endocrinology
  ➢ Comprehensive lab work
  ➢ FSBS
  ➢ CGM data every 3 months with % of data <70, 70-250, >250
  ➢ Flight times and any actions taken to correct glucose values

• Annual eye and cardiac evaluations
Other Issues
Antidepressants

- Mild to moderate depression only
- No history of psychosis or suicidal thoughts
- 4 authorized medications
  - Fluoxetine
  - Sertraline
  - Citalopram
  - Escitalopram
Antidepressants (Continued)

• Special Issuance
  - Single medication only
  - Stable on medication - minimum of 6 months
  - Close monitoring
    • Specially trained HIMS AME sponsor
    • Psychiatrist
    • Psychologist
Antidepressants (Continued)

- Ongoing monitoring by psychiatrist, treating physician, neuropsych testing, HIMS AME
- No dosage changes or medical monitor changes without prior coordination
- Changes in condition must be reported to HIMS AME and FAA immediately
- Process improvement team addressed backlog in processing
## Antidepressants (CY 2018)

<table>
<thead>
<tr>
<th></th>
<th>Class 1</th>
<th>Class 2</th>
<th>Class 3</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>SI</td>
<td>179</td>
<td>40</td>
<td>202</td>
<td>421</td>
</tr>
<tr>
<td>Deny</td>
<td>17</td>
<td>9</td>
<td>37</td>
<td>63</td>
</tr>
<tr>
<td>Processing</td>
<td>4</td>
<td>3</td>
<td>9</td>
<td>16</td>
</tr>
<tr>
<td>Totals</td>
<td>200</td>
<td>52</td>
<td>248</td>
<td>500</td>
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### Obstructive Sleep Apnea (CY 2018)

<table>
<thead>
<tr>
<th>Selection</th>
<th>Class 1</th>
<th>Class 2</th>
<th>Class 3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4,377</td>
<td>1,390</td>
<td>1,052</td>
<td>6,819</td>
</tr>
<tr>
<td>2</td>
<td>803</td>
<td>549</td>
<td>1,149</td>
<td>2,501</td>
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<tr>
<td>3</td>
<td>231,205</td>
<td>58,668</td>
<td>74,495</td>
<td>364,368</td>
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<tr>
<td>4</td>
<td>7,344</td>
<td>2,423</td>
<td>3,093</td>
<td>12,860</td>
</tr>
<tr>
<td>5</td>
<td>107</td>
<td>62</td>
<td>136</td>
<td>305</td>
</tr>
<tr>
<td>6</td>
<td>17</td>
<td>21</td>
<td>50</td>
<td>88</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>243,853</td>
<td>63,113</td>
<td>79,975</td>
<td>387,341*</td>
</tr>
</tbody>
</table>

*Excluding 6 selection for a total of 387,341*
Obstructive Sleep Apnea  
(CY 2018)

<table>
<thead>
<tr>
<th>Selection</th>
<th>Total</th>
<th>BMI Average</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>6,819</td>
<td>32.6</td>
</tr>
<tr>
<td>2</td>
<td>2,504</td>
<td>32.3</td>
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<tr>
<td>3</td>
<td>364,367</td>
<td>27.1</td>
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<tr>
<td>4</td>
<td>12,860</td>
<td>33.7</td>
</tr>
<tr>
<td>5</td>
<td>305</td>
<td>37.6</td>
</tr>
<tr>
<td>6</td>
<td>88</td>
<td>33.9</td>
</tr>
</tbody>
</table>
# Obstructive Sleep Apnea

<table>
<thead>
<tr>
<th>Disposition - Selection #5</th>
<th>45%</th>
</tr>
</thead>
<tbody>
<tr>
<td>(High Risk for OSA, Evaluation Req.)</td>
<td>Negative Evaluation - warning</td>
</tr>
</tbody>
</table>

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CAMA Annual Meeting - Cleveland, OH
September 26, 2019
Obstructive Sleep Apnea

<table>
<thead>
<tr>
<th>24%</th>
<th>Negative Evaluation - warning</th>
</tr>
</thead>
</table>

Disposition - Selection #6
(Very High Risk for OSA, deferred)
BasicMed (after 21 months)

Statistics and Questions
FAA Extension, Safety, and Security Act (FESSA) 2016 and BasicMed (14 CFR Part 68)

- Part 68 is an “operational” rule. It is not medical certification, but an alternative. Part 68 (BasicMed) is the responsibility of the FAA Flight Standards Service (AFS).” AAM supports and collaborates with AFS on the medical issues that arise with BasicMed.

- Final Rule was published in January 2017

- Short Title - BasicMed - implemented May 1, 2017

- 14 CFR Part 67 has not changed and third-class medical certification remains the same
Special Situations not Addressed by the law

- Airmen reported as having a DUI within the last 2 years on the National Drivers Registry
- Hotline complaints alleging airmen to have conditions that would make them ineligible for BasicMed
- Airmen found to have falsified their most recent application for airman medical certification.
Special Situations not Addressed by the law

- State licensed physician reports that they signed off on a BasicMed CMEC, realizes that the airman did not reveal all medical conditions or medications documented in the health care systems electronic healthcare records system.

- Re-examination of an airman’s qualifications for BasicMed if urgent and credible information is received suggesting that they may have one of the conditions requiring evaluation by the FAA special issuance process.
Current Age in Years
BasicMed Pilots

Median = 65.5 Years
Average Age is 65.5 years old
Max = 100.56 and Min = 17.1

5.9% (2,590) are 80 years of age or more
Gender Of BasicMed Pilots

42,947 (97.1%)  1,299 (2.9%)

7.8% of pilots holding a valid 3rd-class medical certificate are women
44,264 BasicMed pilots
02/21/19

- 28.1% (12,427) with last medical certificate being a Special Issuance

- 6.2% of 3\textsuperscript{rd} class pilots have a Special Issuance