

Example Air Carrier Results

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Section B: Safety Related Events



- **Equipment Problems**
- **Turbulence**
- **Weather Events While Airborne**
- **Passenger Related Events**
- **Airborne Conflicts**
- **Ground Operations**
- **Aircraft Handling Events**
- **Altitude Deviations**
- **Air Traffic Control Interactions**

Equipment-Related Events



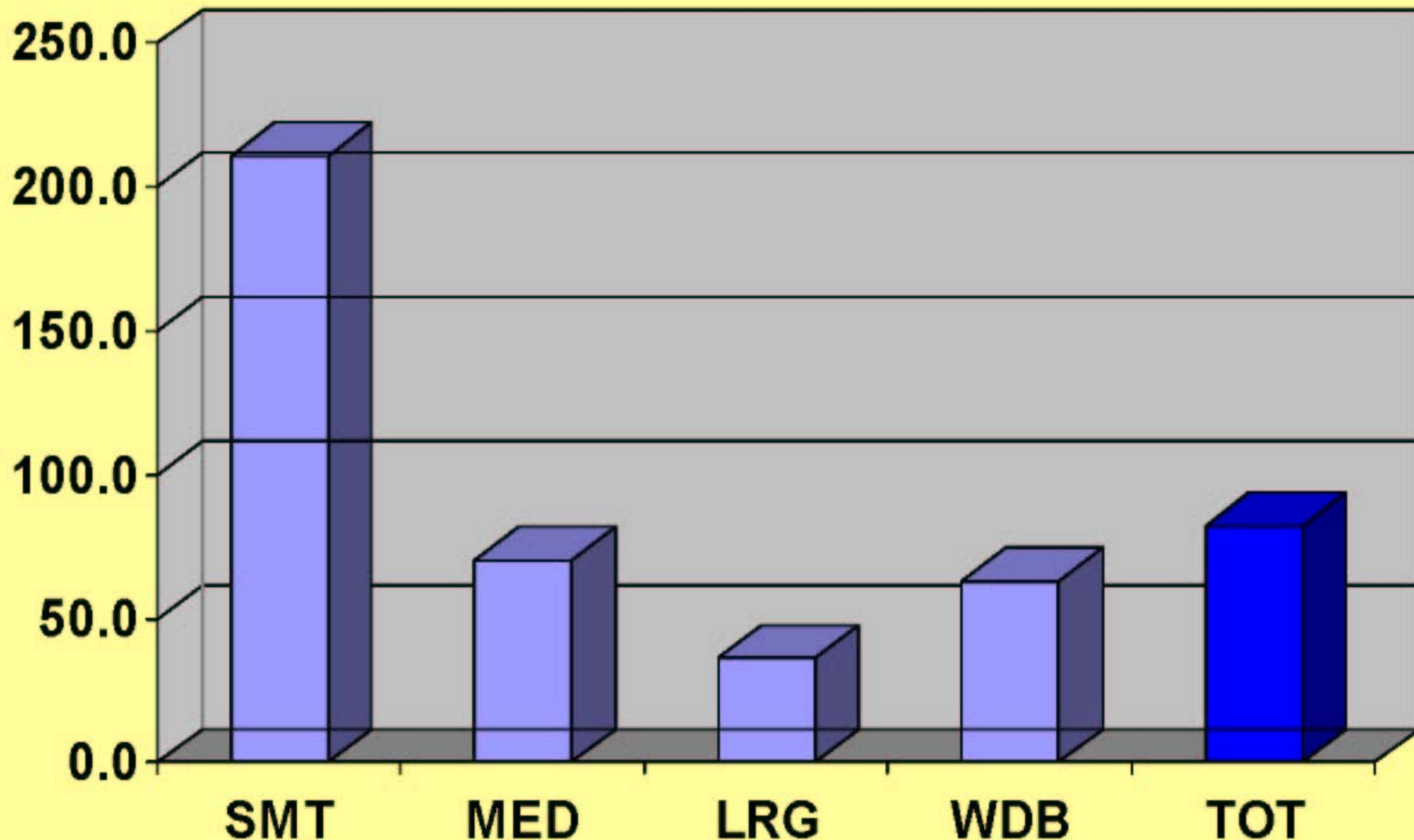
This section addresses aircraft related equipment failures such as equipment-related diversions, engine problems, uncommanded movements etc.

Diversion Due to Equipment Problem

Question: **Equipment Problems (ER1)**

Rate estimates based on all data collected through October, 2002.

Exposure Factor: **Events per 100k Hours**



Turbulence Events



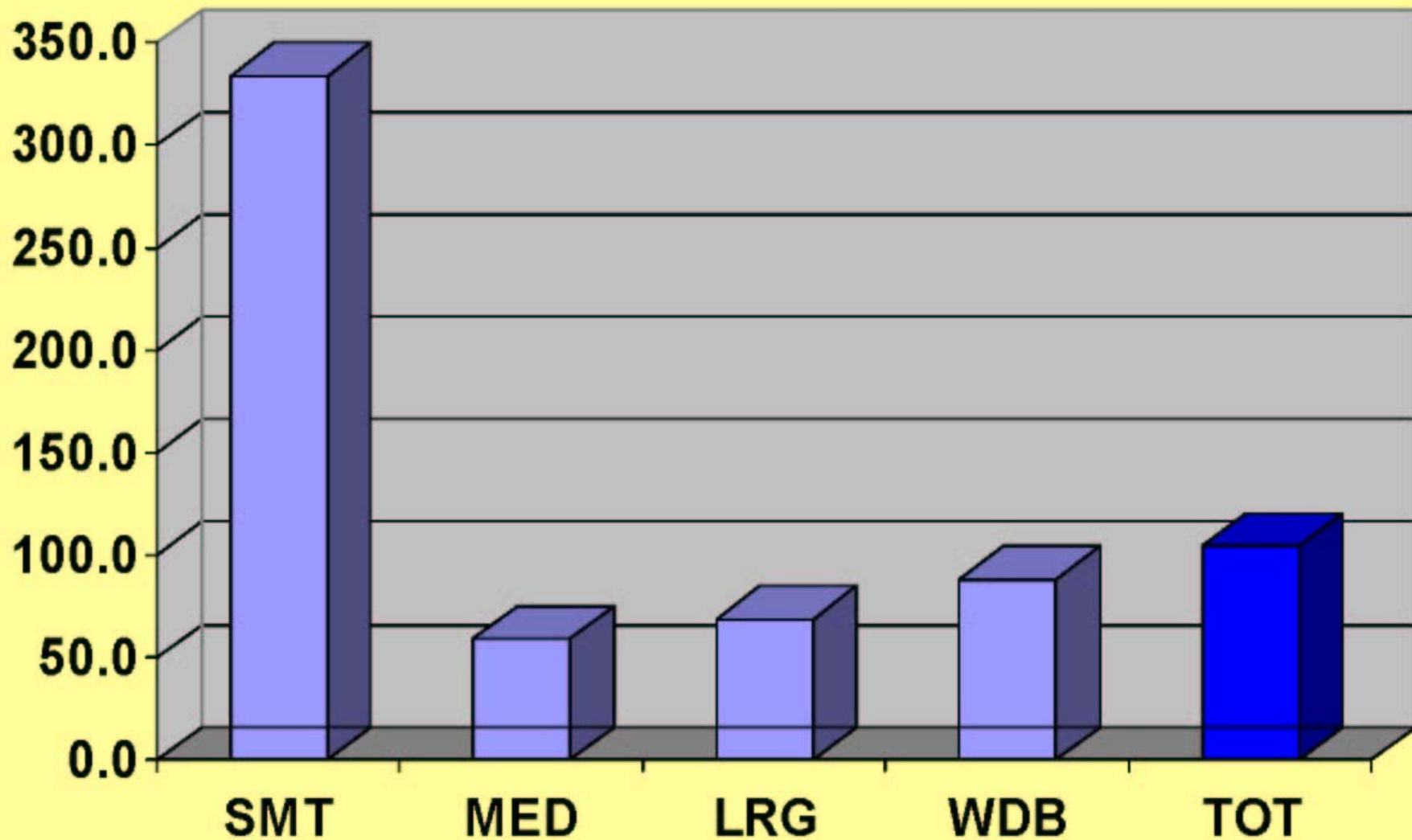
Questions address weather-related, clear-air, and wake turbulence.

Severe Turbulence Encounter

Question: **Turbulence Encounters (TU1)**

Rate estimates based on all data collected through October, 2002.

Exposure Factor: **Events per 100k Hours**

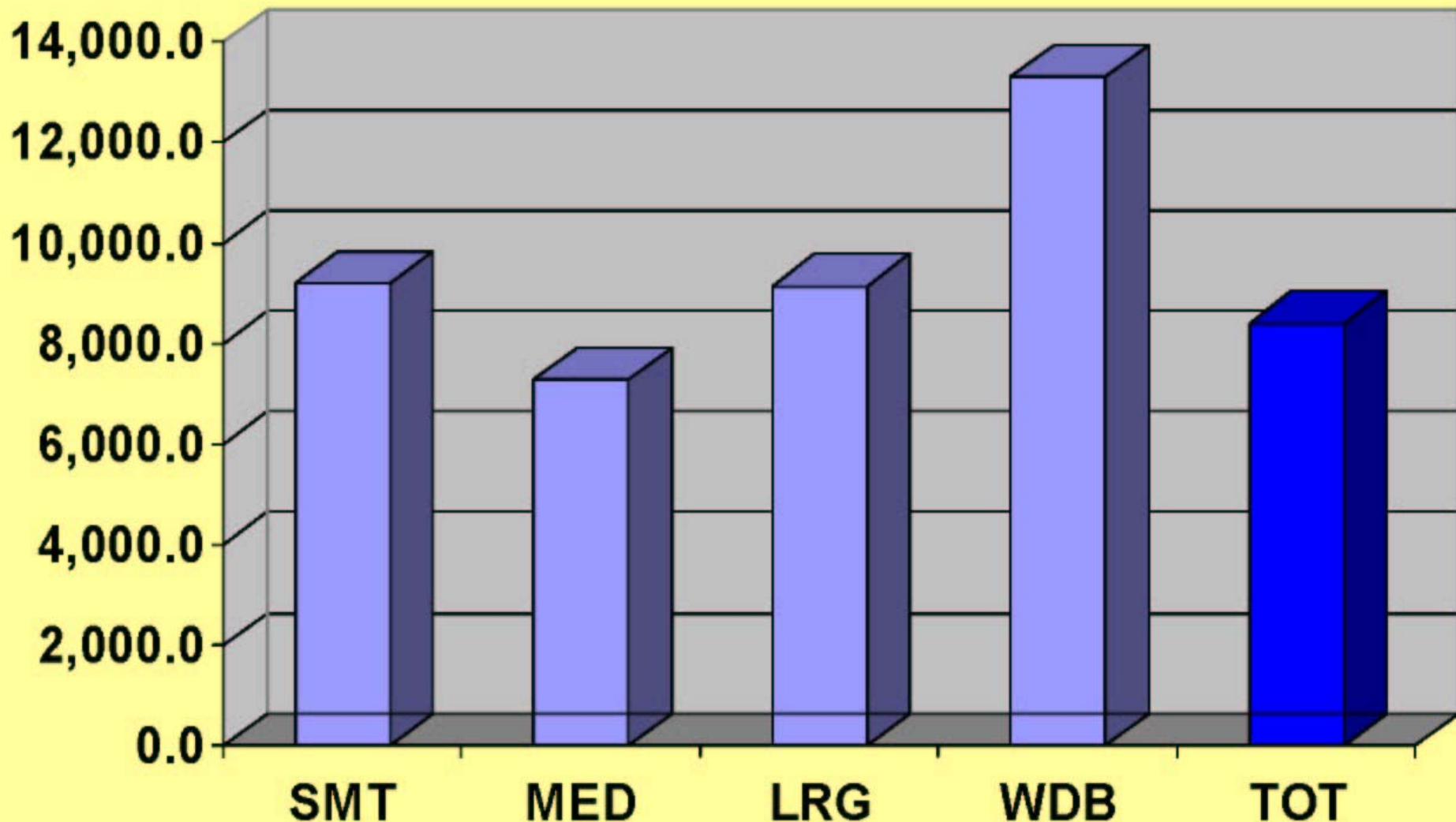


Windshear or Microburst Encounter; >15 Knot Airspeed Chg

Question: Weather-Related Events (WE5)

Rate estimates based on all data collected through October, 2002.

Exposure Factor: Events per 1 million Legs

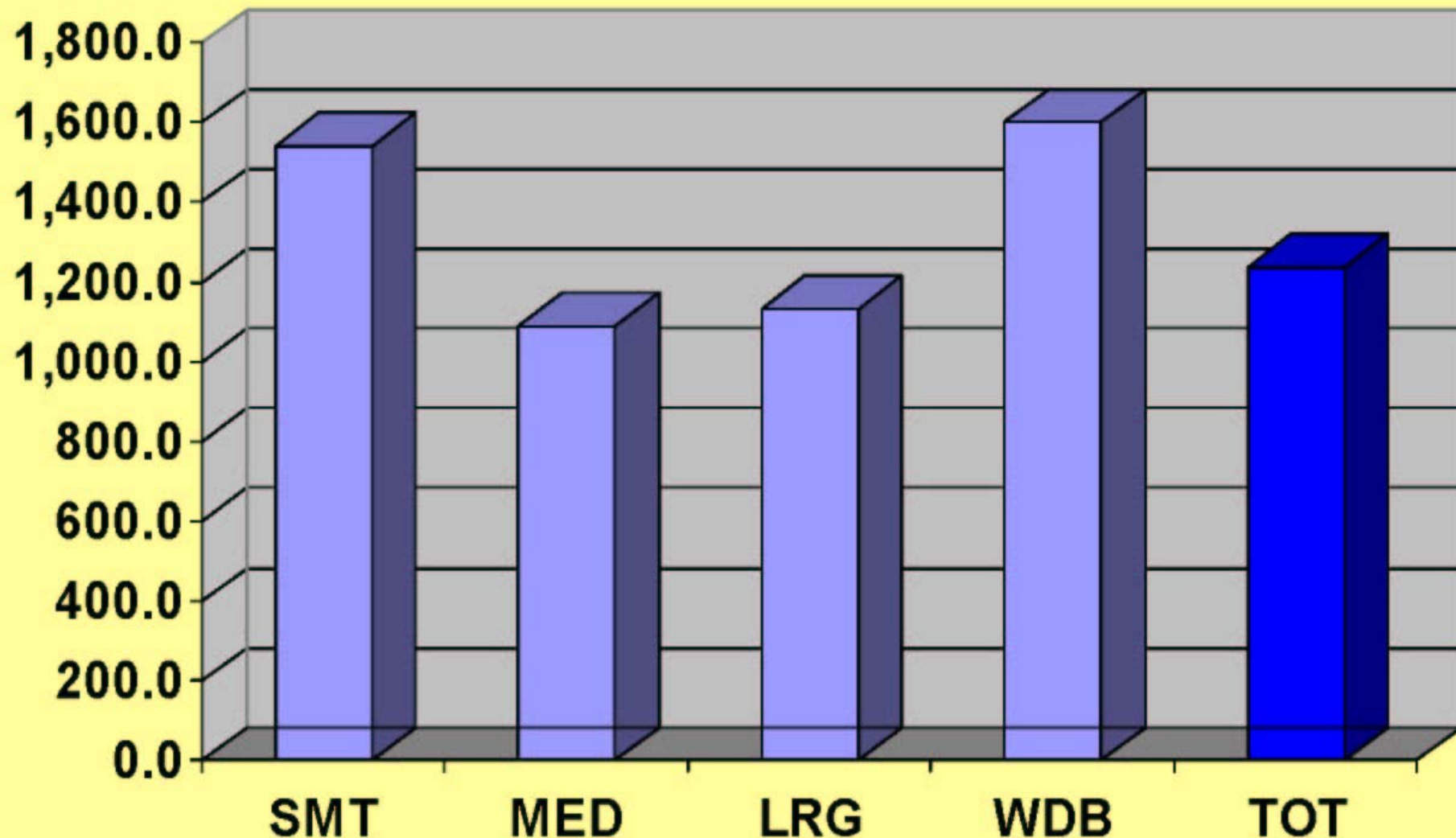


Windshear or Microburst Encounter; Windshear Maneuver

Question: **Weather-Related Events (WE6)**

Rate estimates based on all data collected through October, 2002.

Exposure Factor: **Events per 1 million Legs**

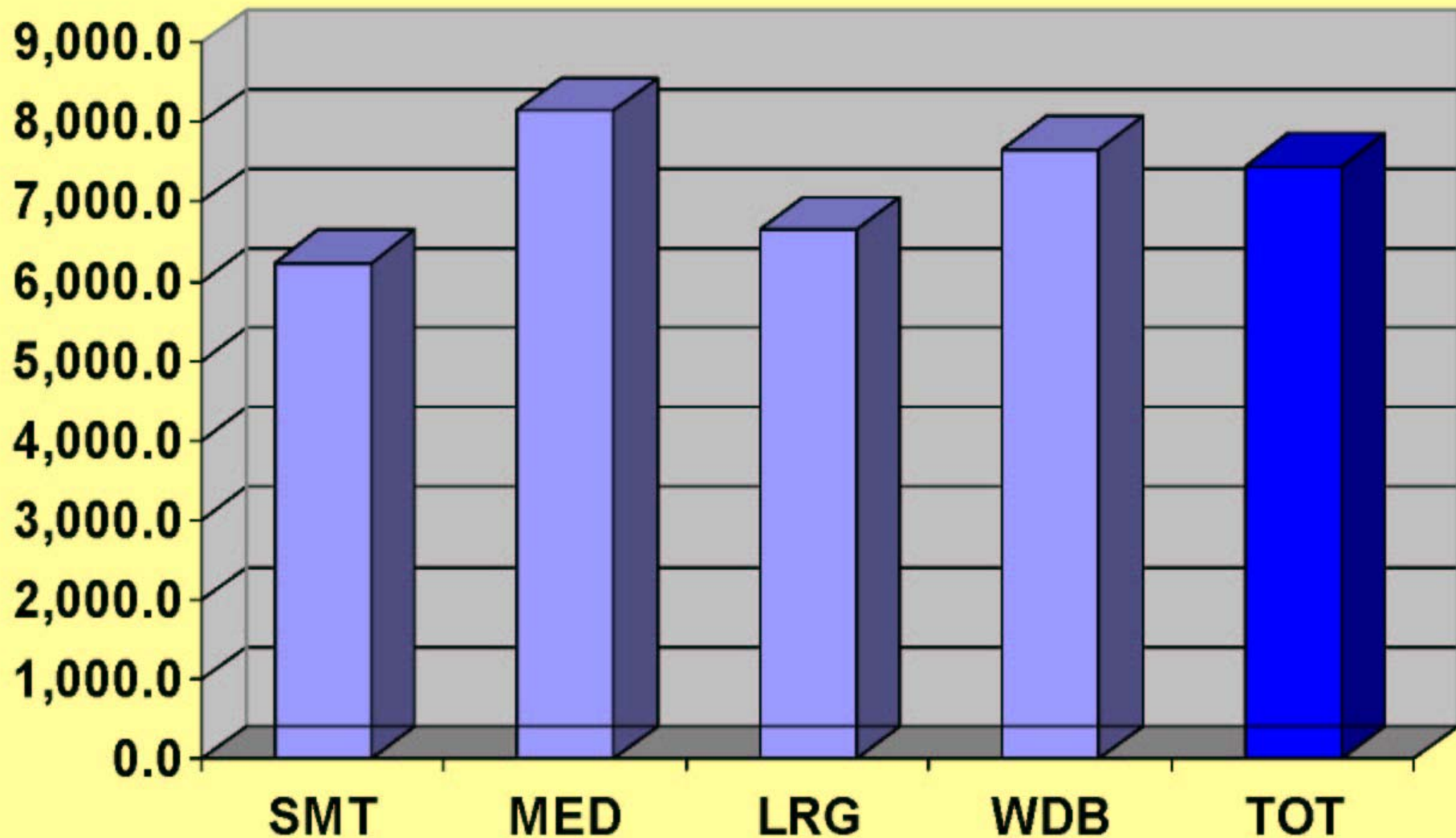


Wake Turbulence Encounter

Question: **Turbulence Encounters (TU2)**

Rate estimates based on all data collected through October, 2002.

Exposure Factor: **Events per 1 million Legs**





Weather-Related Events

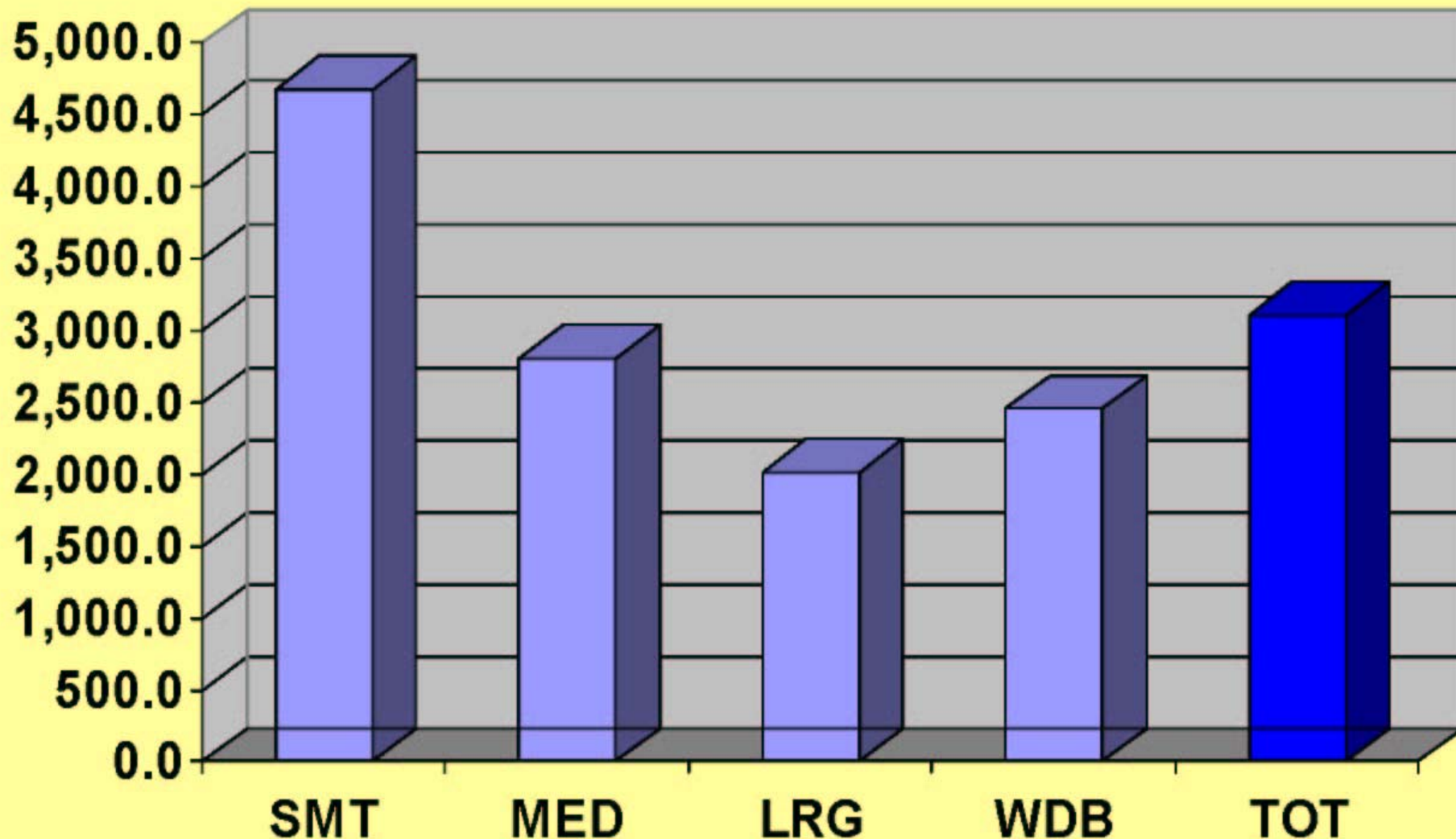
Questions focus on weather related events and issues. Topics include, but are not limited to, airframe icing, wind shear, weather diversions and other factors.

Diverted to Alternate Airfield because of Wx

Question: **Weather-Related Events (WE3)**

Rate estimates based on all data collected through October, 2002.

Exposure Factor: **Events per 1 million Legs**

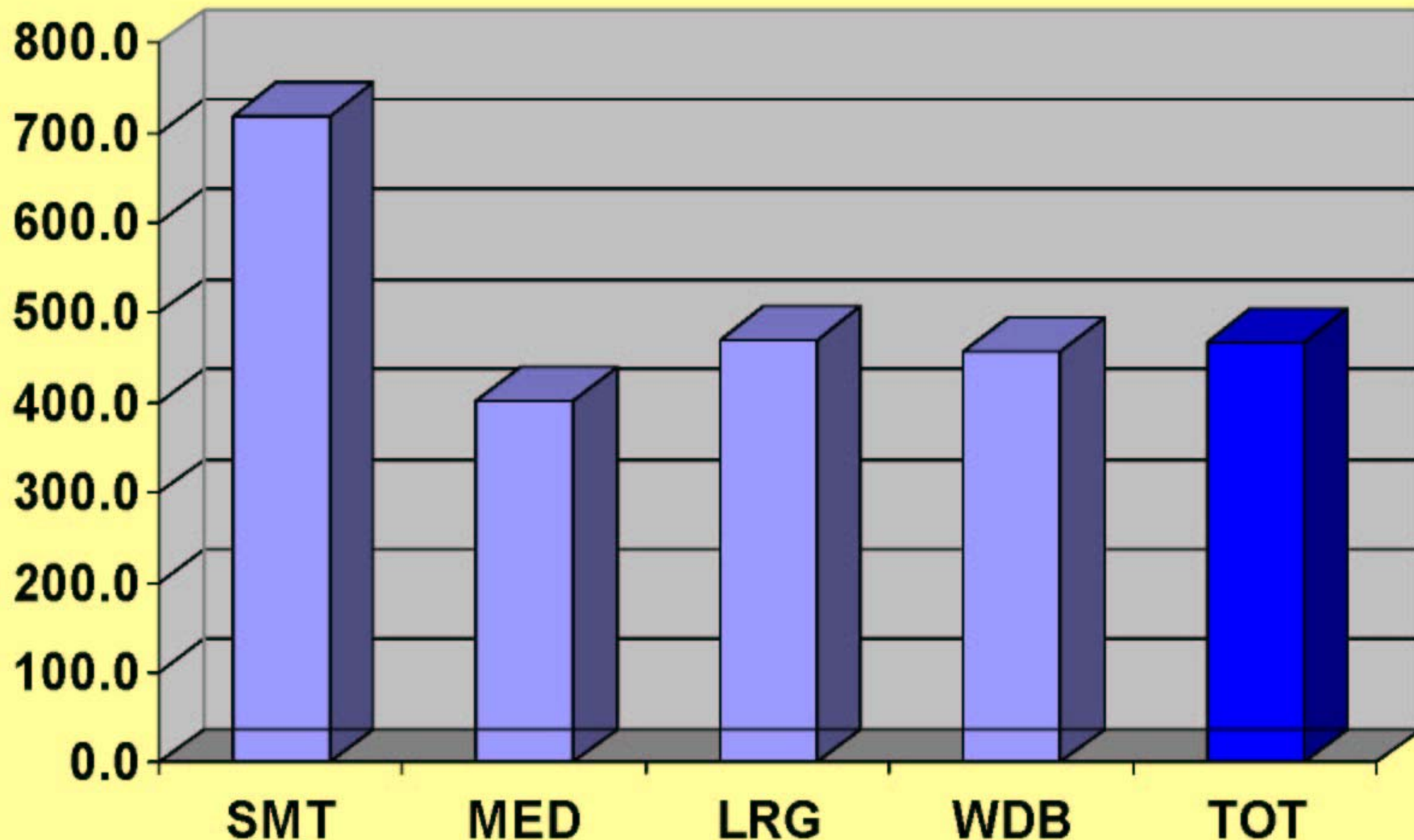


Lacked Good Wx Info while Airborne

Question: **Weather-Related Events (WE1)**

Rate estimates based on all data collected through October, 2002.

Exposure Factor: **Events per 100k Hours**

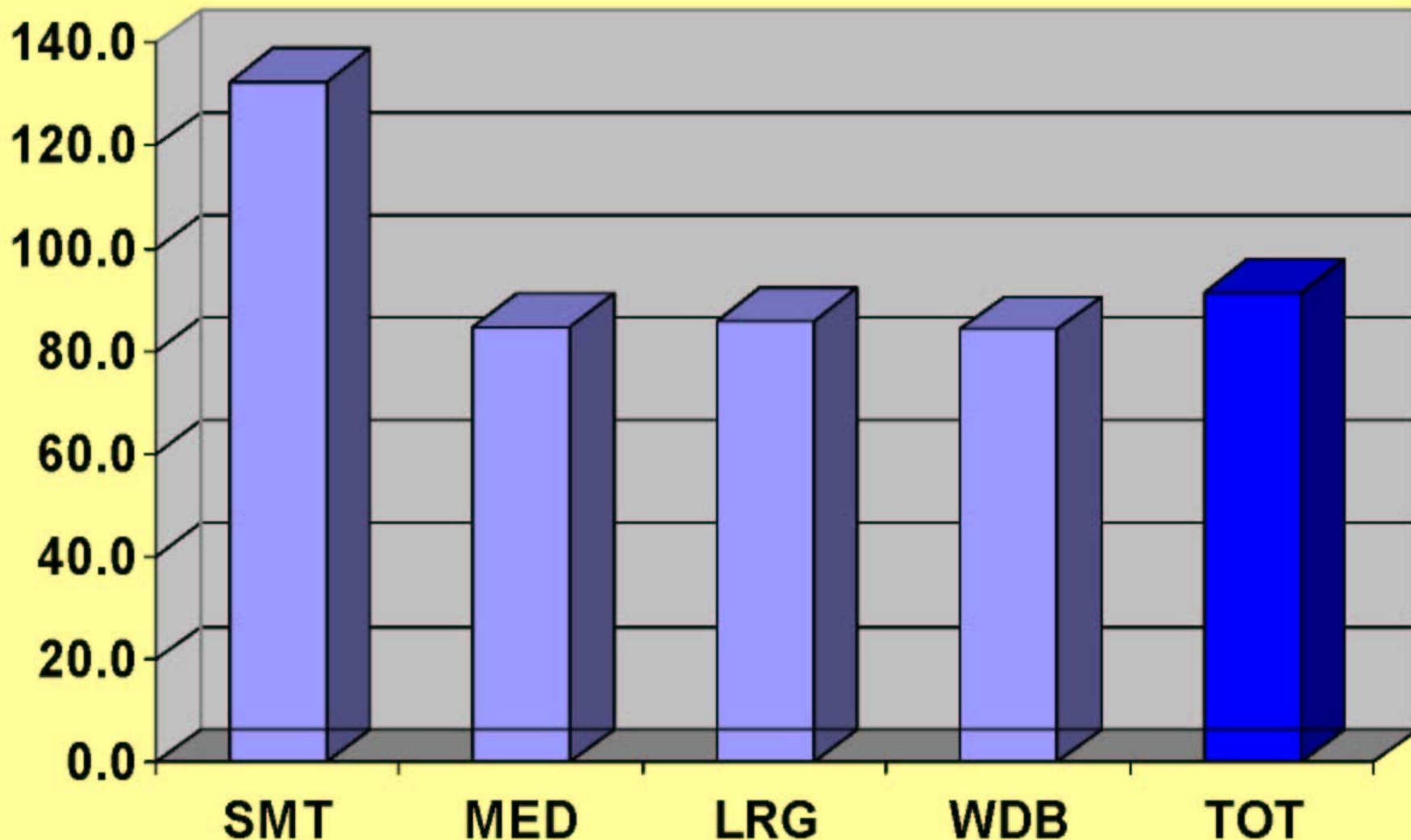


ATC Denied Request to Circumvent Wx

Question: **Weather-Related Events (WE2)**

Rate estimates based on all data collected through October, 2002.

Exposure Factor: **Events per 100k Hours**





Passenger-Related Events

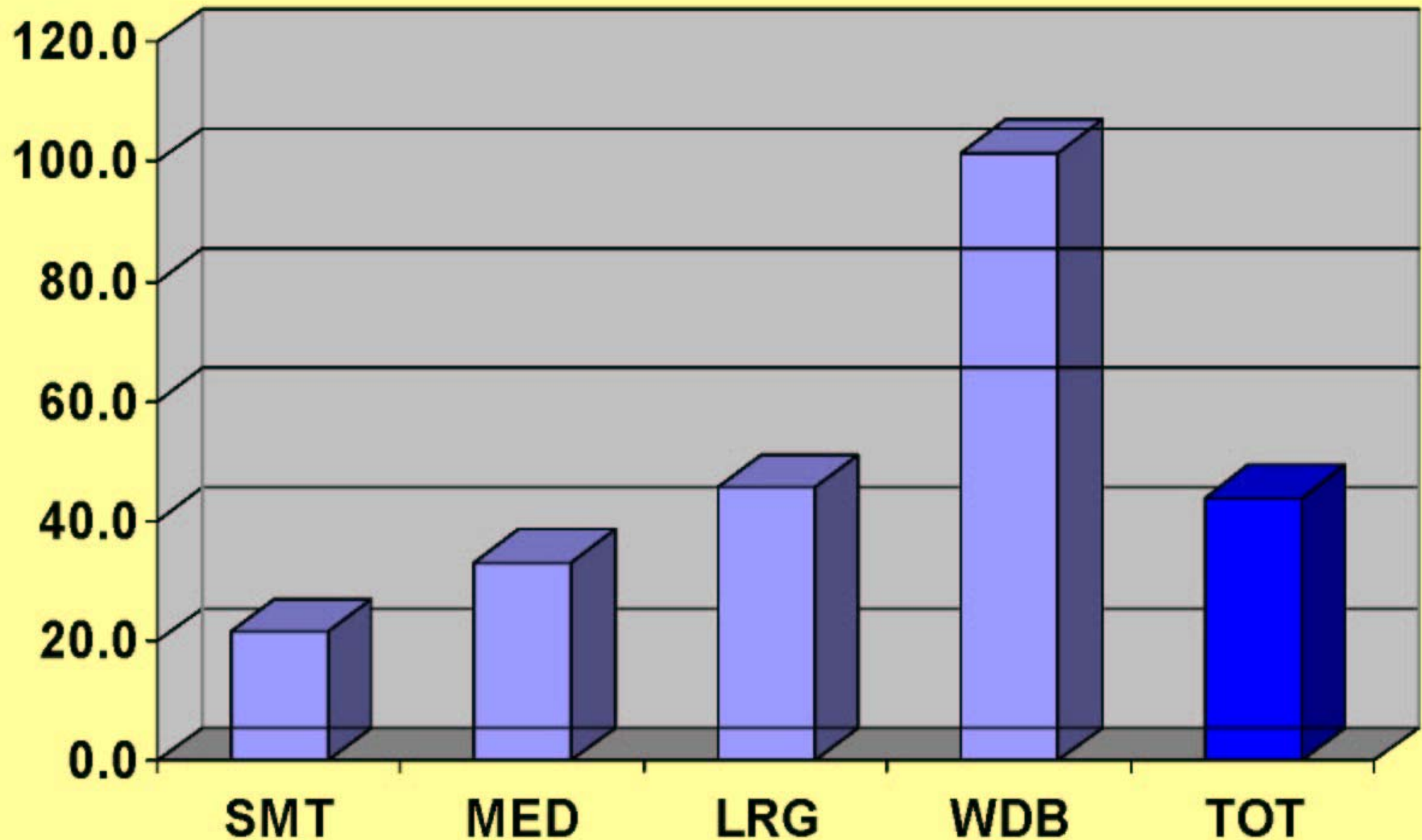
**These questions focus on
passenger emergencies
and disruptions.**

Pilot Left Cockpit to Deal with Pax Disturbance

Question: **Passenger-Related Events (CP3)**

Rate estimates based on all data collected through October, 2002.

Exposure Factor: **Events per 100k Hours**

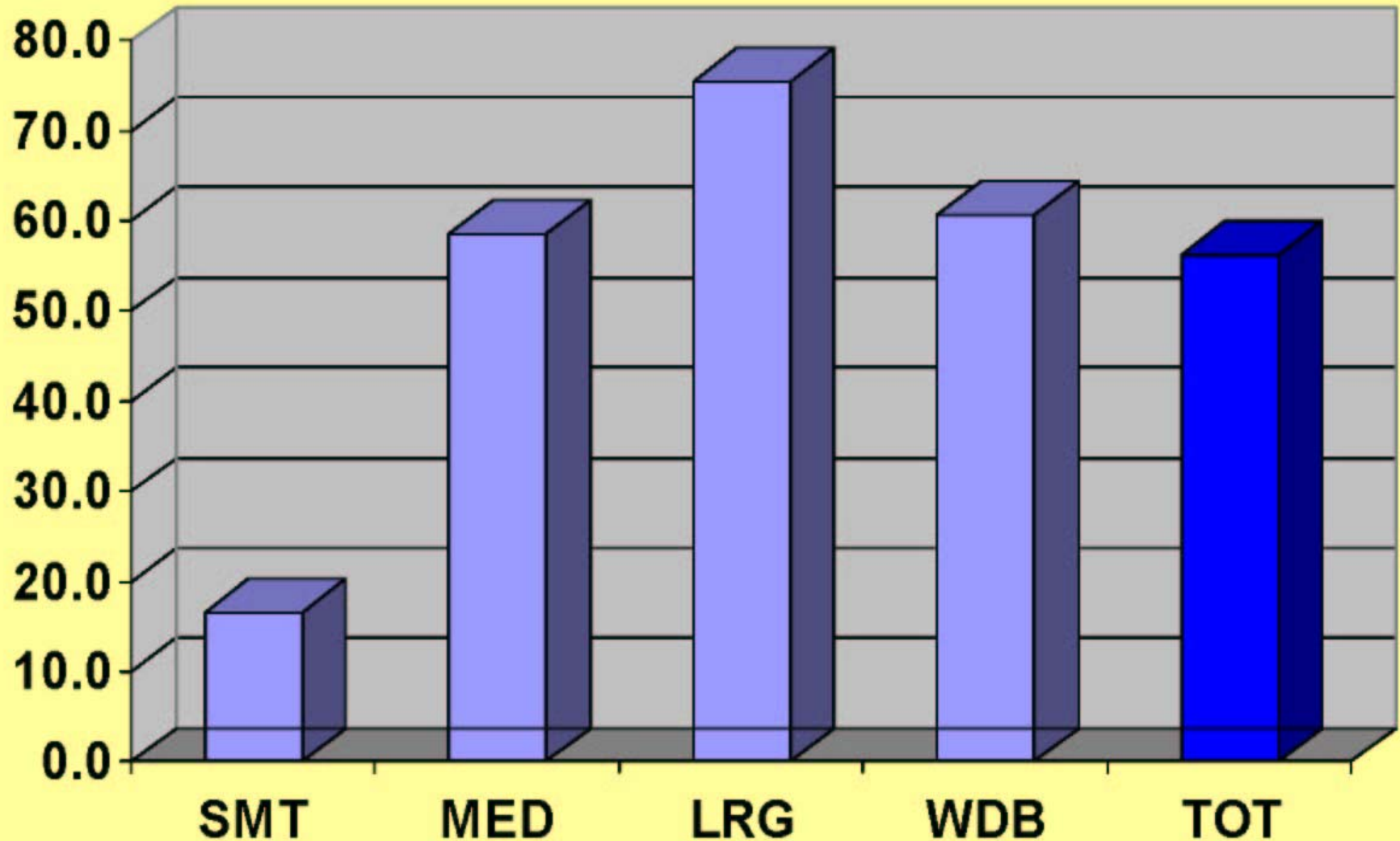


Expedited Lndg or Diversion due to Pax Medical Emergency

Question: **Passenger-Related Events (CP1)**

Rate estimates based on all data collected through October, 2002.

Exposure Factor: **Events per 100k Hours**





Airborne Conflicts

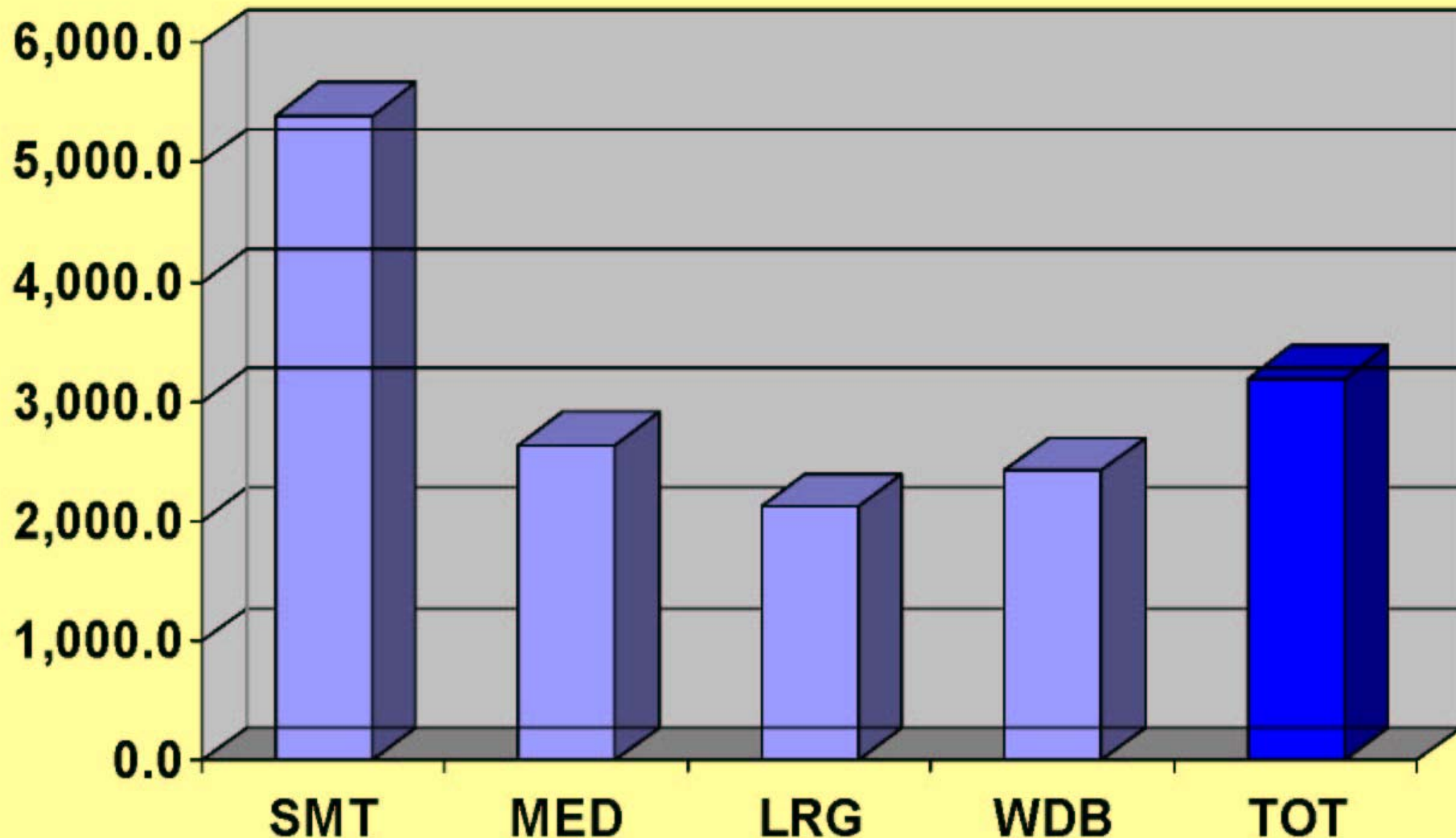
Airborne conflicts involve issues such as near mid-air collisions, evasive actions to avoid collisions and bird strikes.

Evasive Action; >500 ft Separation

Question: Airborne Conflicts (AC2)

Rate estimates based on all data collected through October, 2002.

Exposure Factor: Events per 1 million Legs



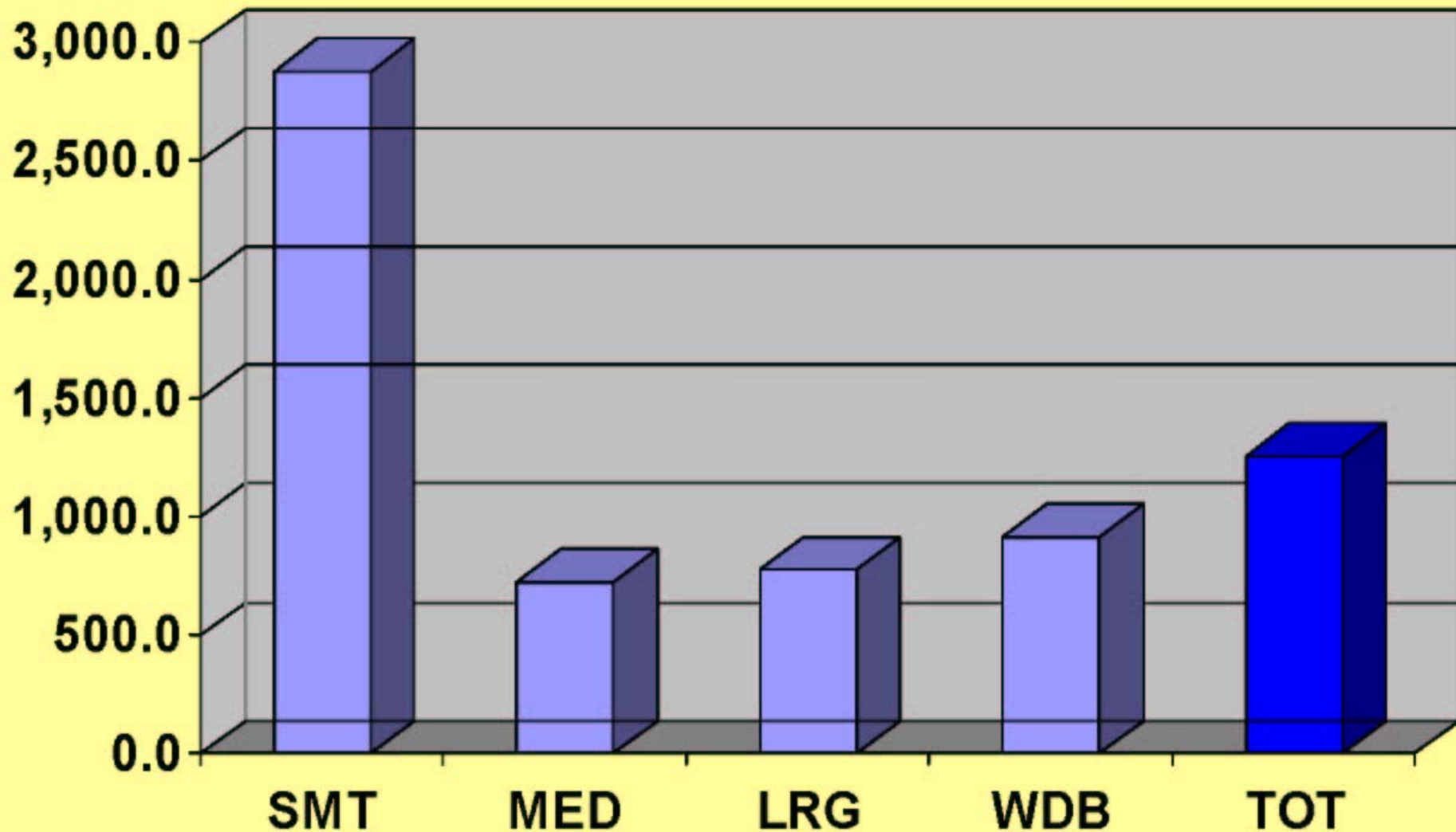
Estimated Air Carrier Event Rates

<500 ft Separation

Question: **Airborne Conflicts (AC3)**

Exposure Factor: **Events per 1 million Legs**

Rate estimates based on all data collected through October, 2002.

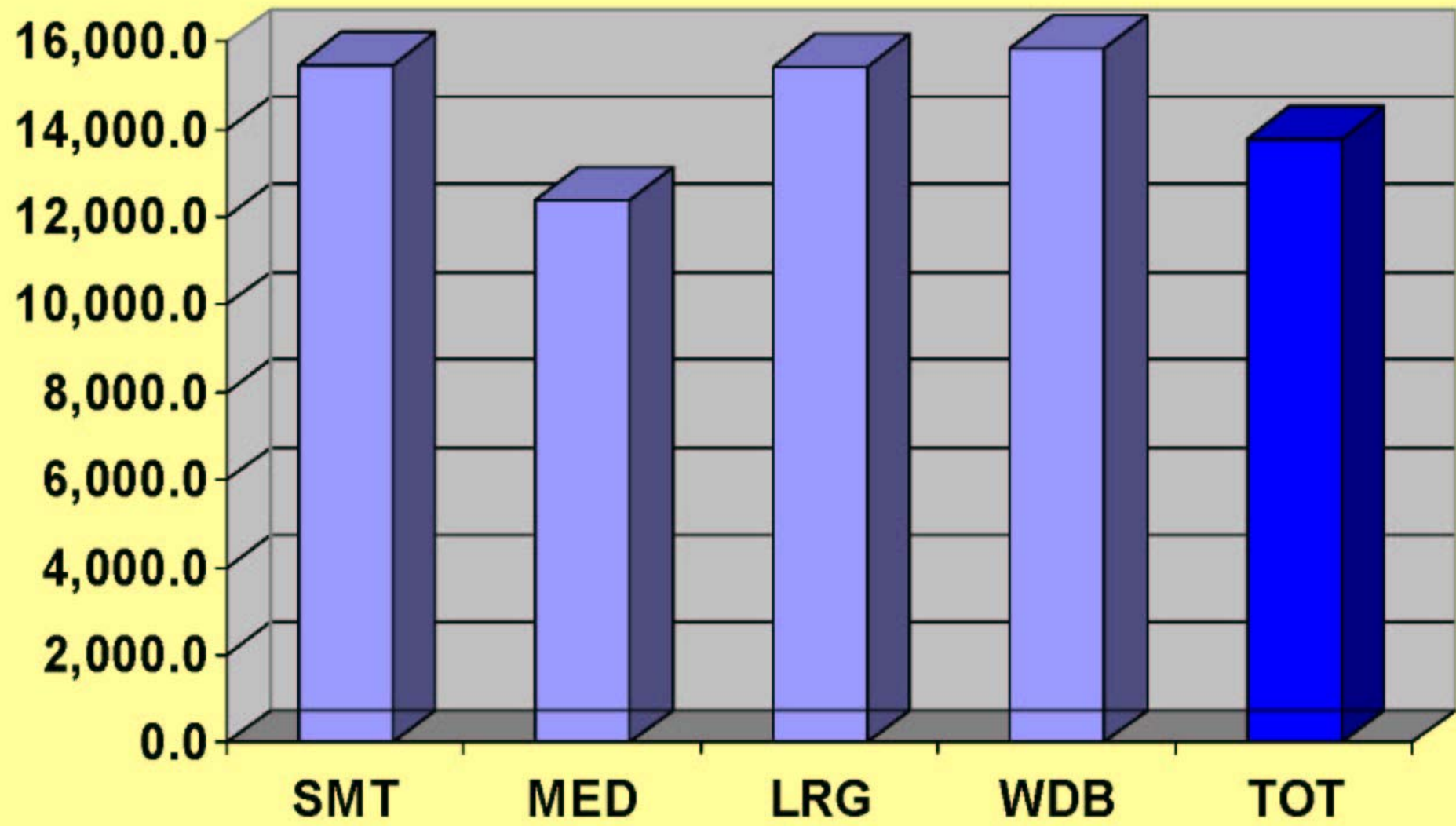


Lost Sight of Visually Separated Acft

Question: **Aircraft Handling Events (AH3)**

Rate estimates based on all data collected through October, 2002.

Exposure Factor: **Events per 1 million Legs**

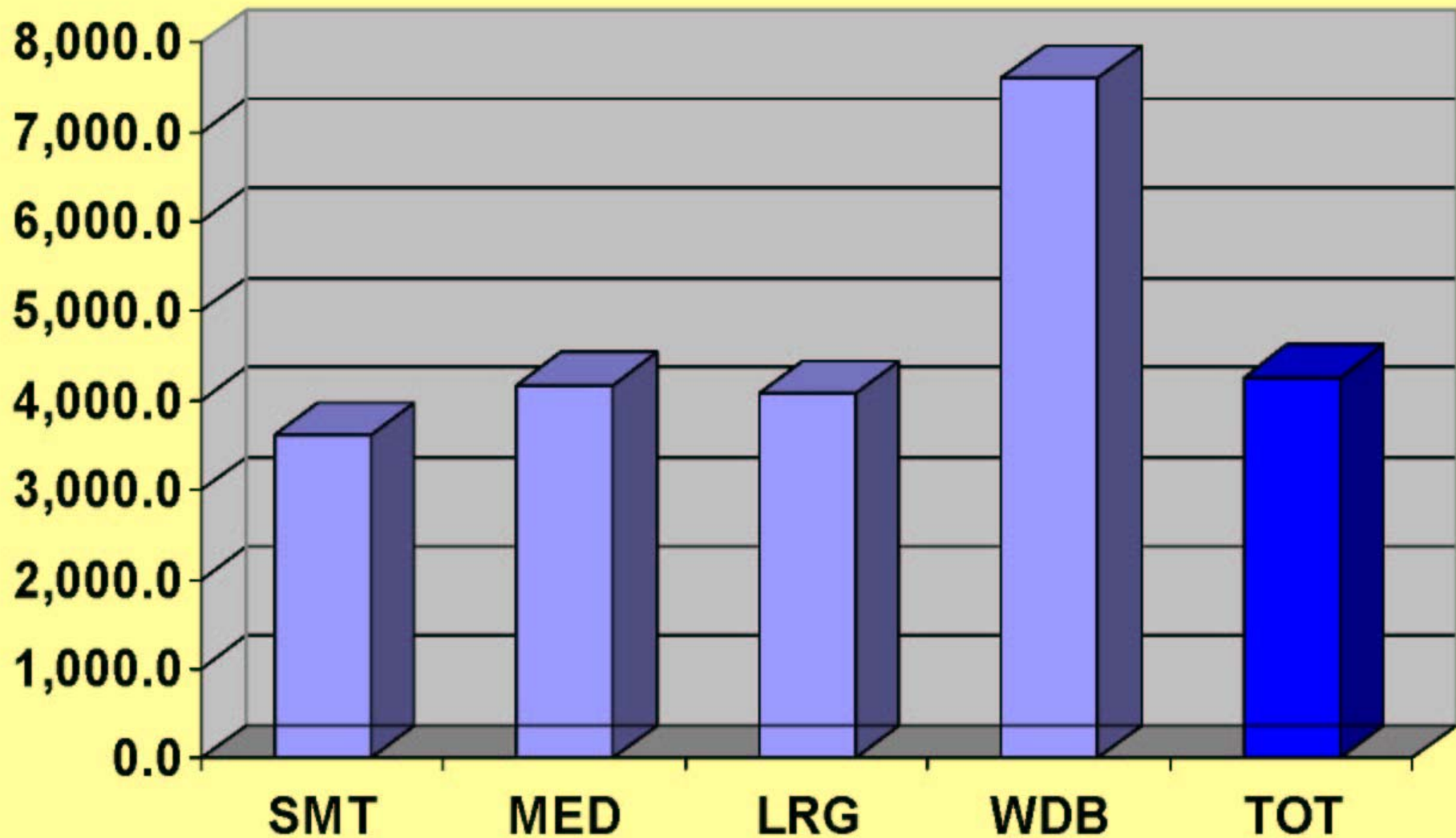


Bird Strike

Question: **Airborne Conflicts (AC1)**

Rate estimates based on all data collected through October, 2002.

Exposure Factor: **Events per 1 million Legs**





Ground Operations

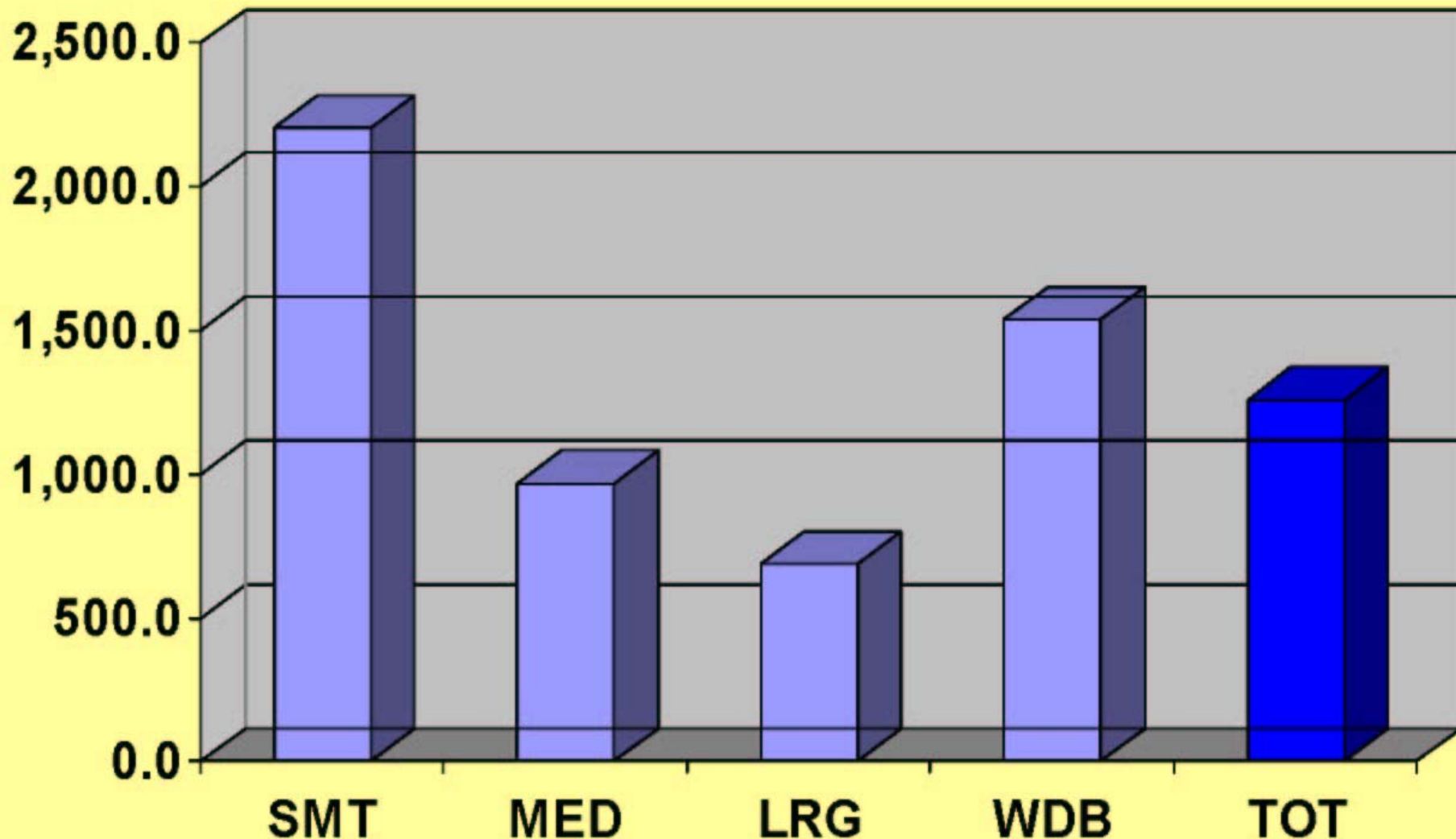
This section asks questions relating to aircraft departures from paved surfaces, near collisions with other vehicles on the ground, intrusion into occupied runways, rejected takeoffs, and more.

Rejected Takeoff

Question: **Ground Events (GE4)**

Rate estimates based on all data collected through October, 2002.

Exposure Factor: **Events per 1 million Legs**

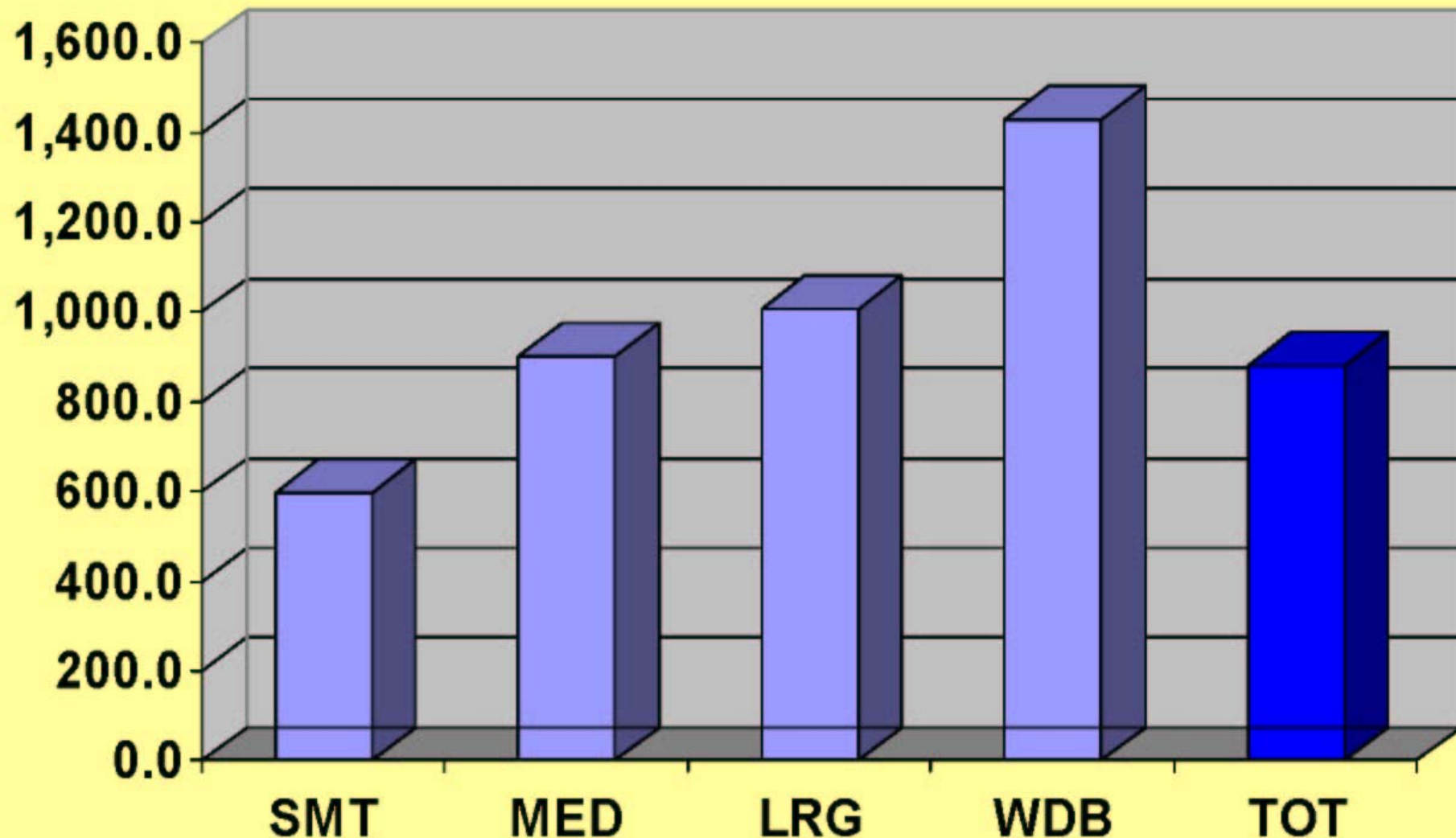


Ground Conflict with Vehicle

Question: **Ground Events (GE2)**

Rate estimates based on all data collected through October, 2002.

Exposure Factor: **Events per 1 million Legs**

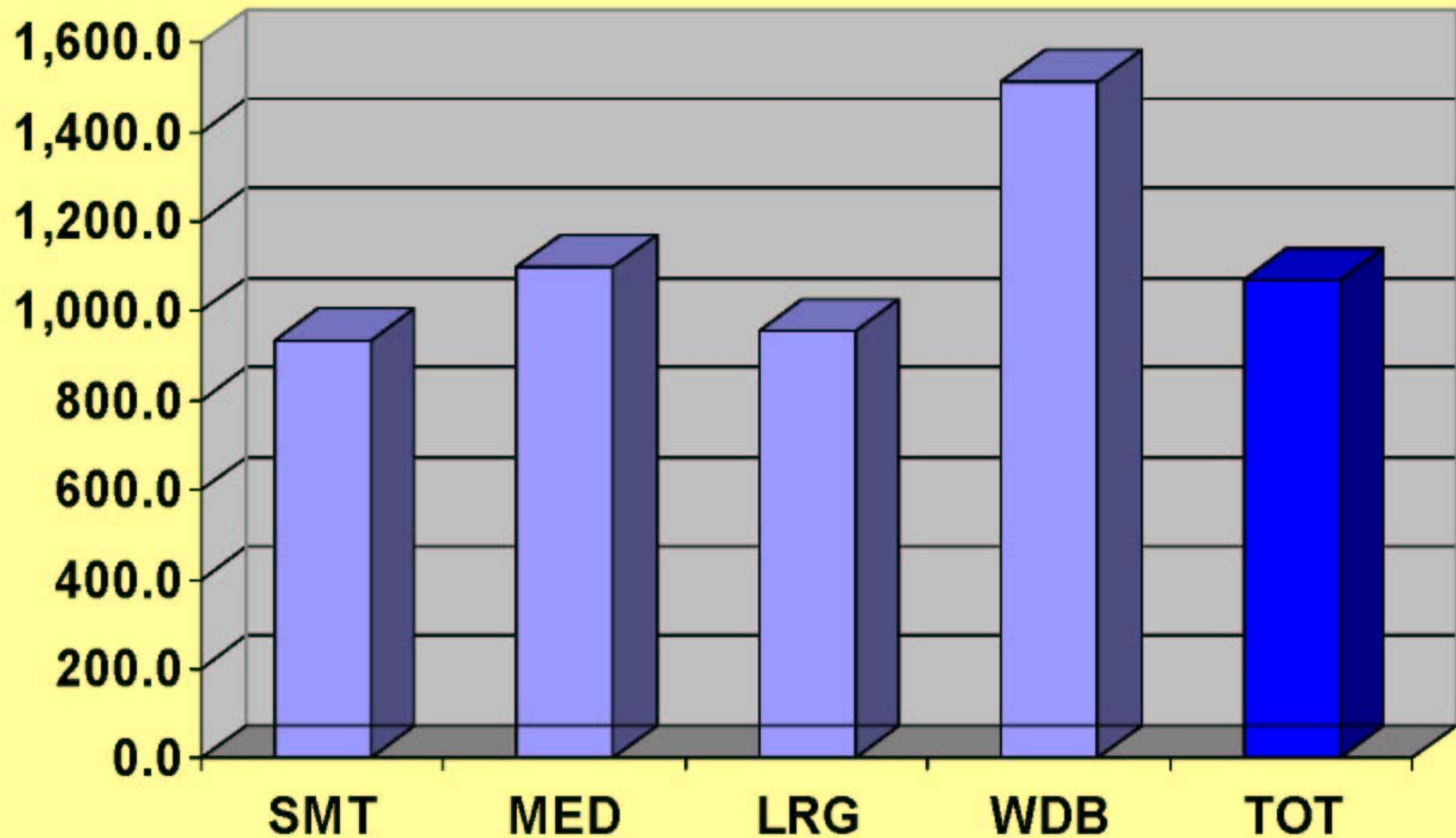


Landing Skid

Question: **Ground Events (GE3)**

Rate estimates based on all data collected through October, 2002.

Exposure Factor: **Events per 1 million Legs**





Spatial Deviations

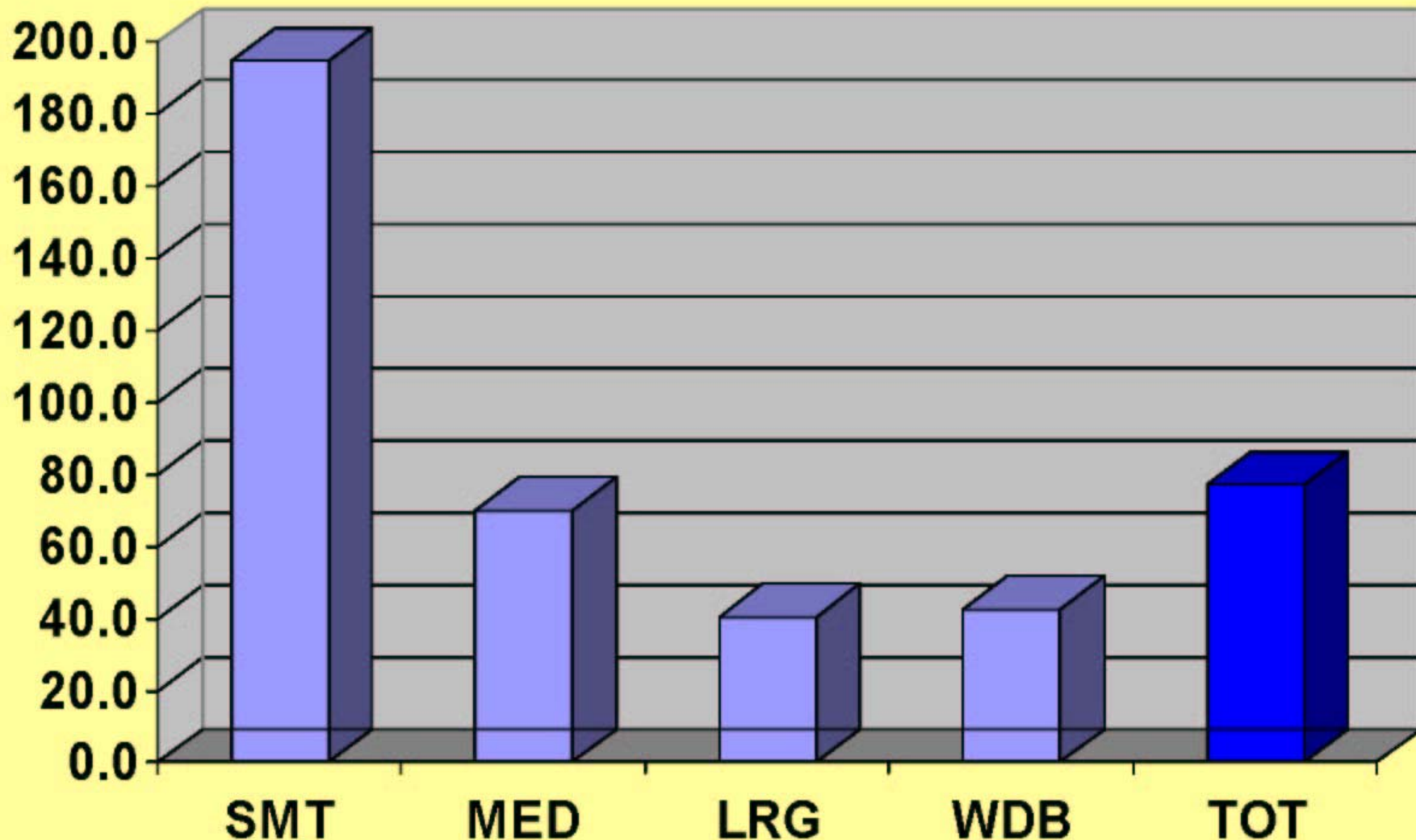
Questions relate to altitude overshoots, inadvertent altitude deviations, and descents below minimum safe altitude (MSA), track deviations, and airspace incursions/excursions.

Altitude Deviation; >300 ft

Question: **Altitude Deviations (AD1)**

Rate estimates based on all data collected through October, 2002.

Exposure Factor: **Events per 100k Hours**

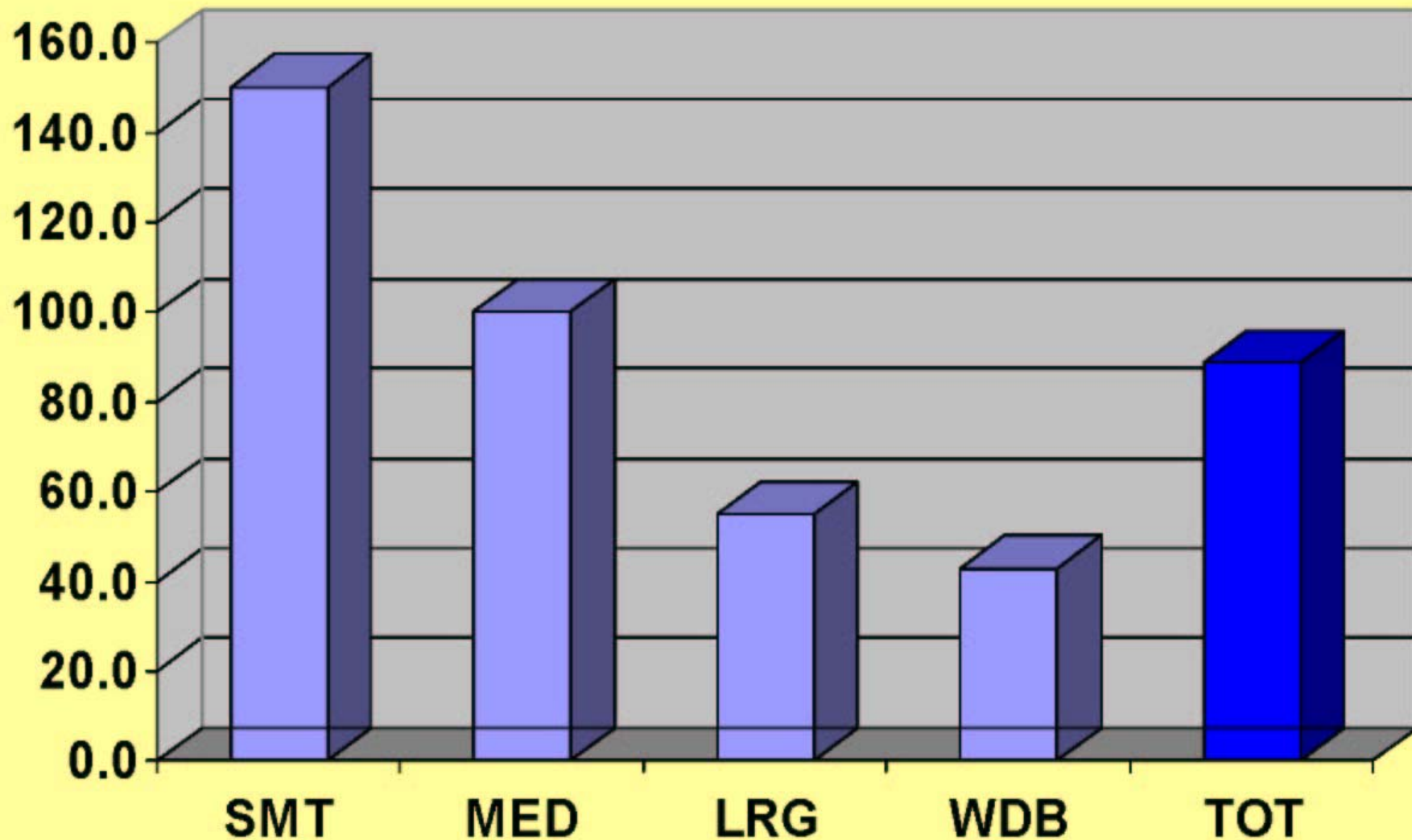


Track Deviation

Question: **Aircraft Handling Events (AH6)**

Rate estimates based on all data collected through October, 2002.

Exposure Factor: **Events per 100k Hours**



Pilot Interactions with ATC



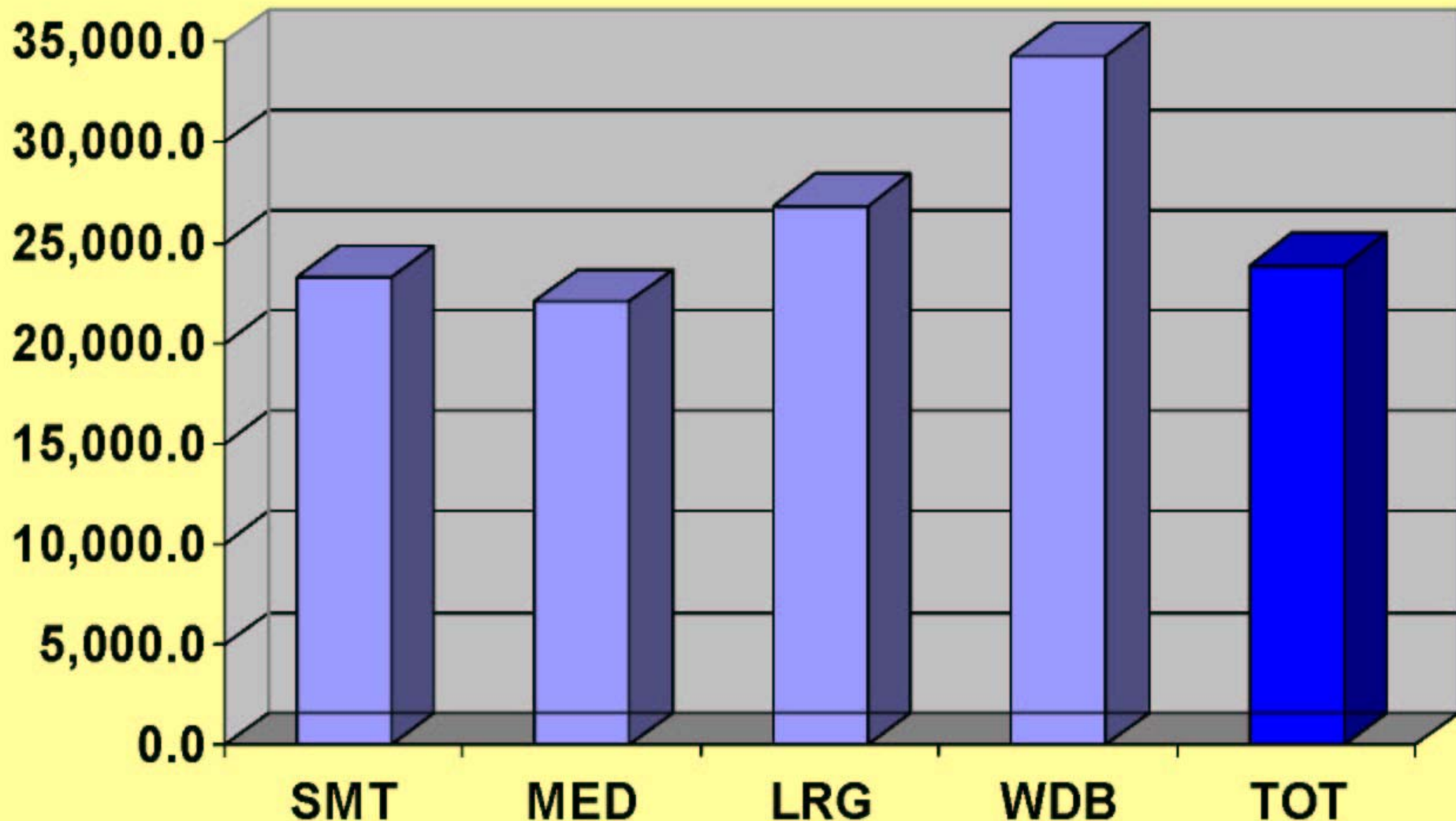
These questions are related to frequency congestion, rushed (high or fast) approaches and other ATC related issues.

Unable Time-Critical Com with ATC

Question: **ATC-Interaction Events (AT1)**

Rate estimates based on all data collected through October, 2002.

Exposure Factor: **Events per 1 million Legs**

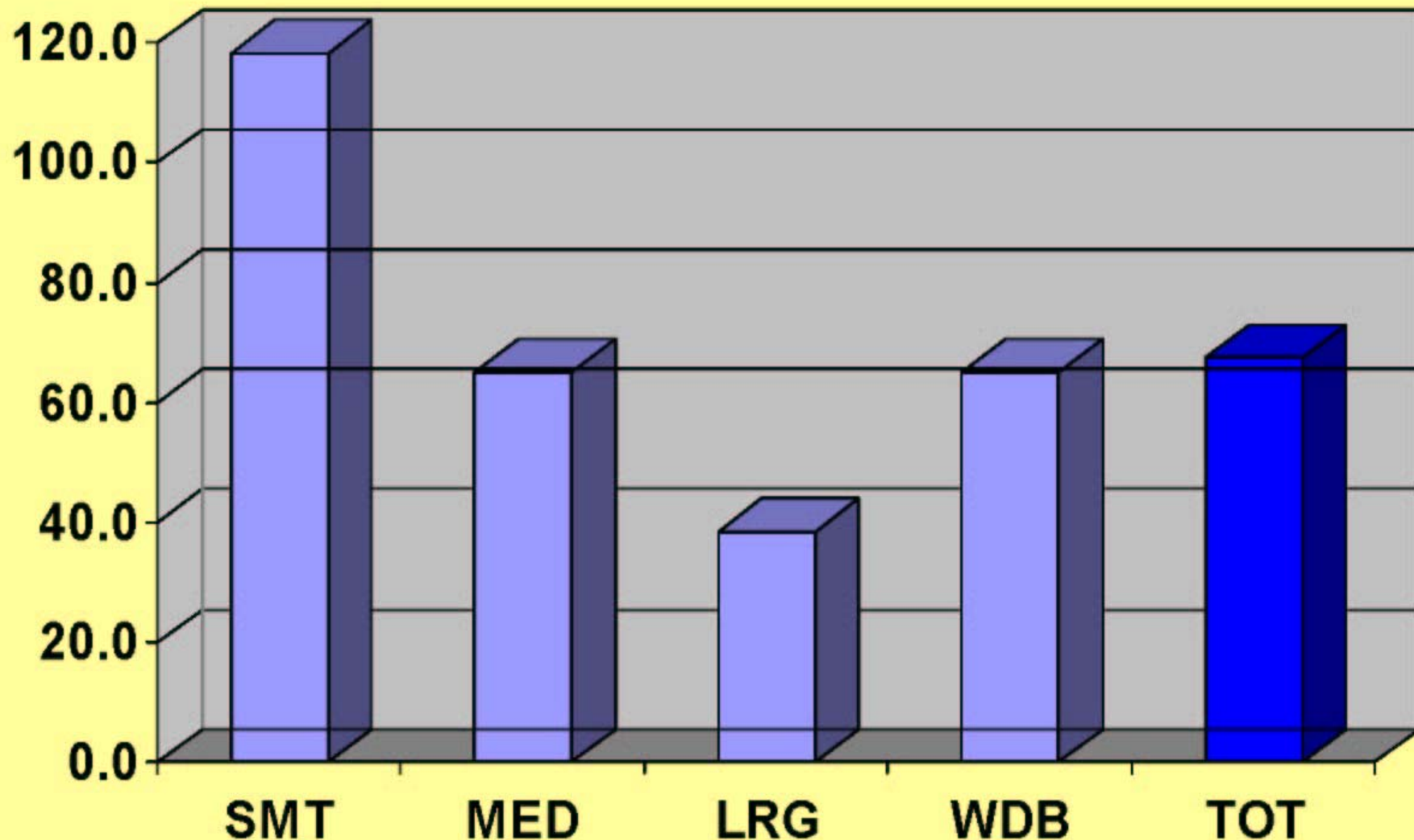


Accepted Clearance; Could Not Comply

Question: Aircraft Handling Events (AH2)

Exposure Factor: Events per 100k Hours

Rate estimates based on all data collected through October, 2002.

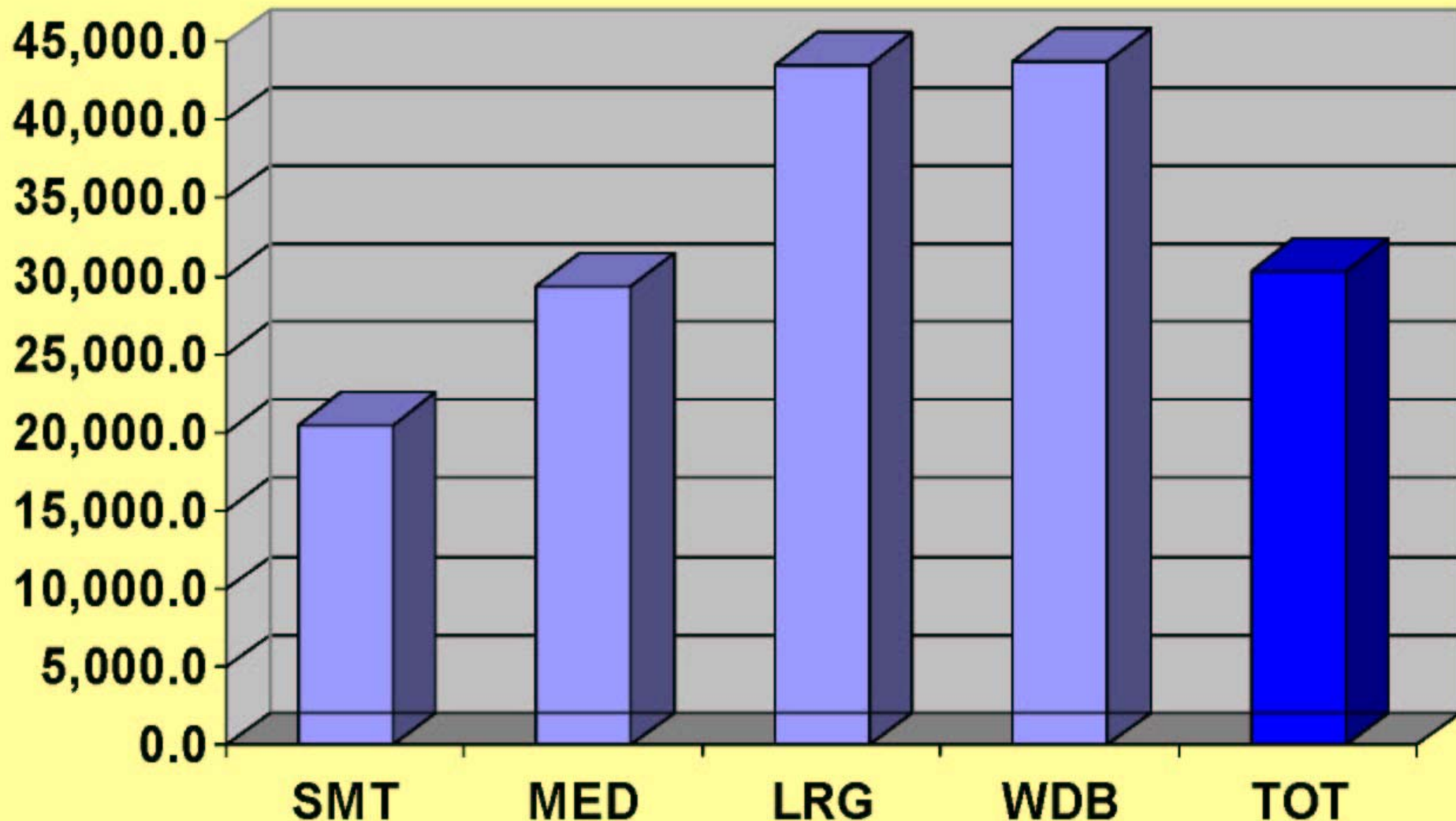


Rushed Approach Due to ATC

Question: **ATC-Interaction Events (AT2)**

Rate estimates based on all data collected through October, 2002.

Exposure Factor: **Events per 1 million Legs**





Aircraft Handling

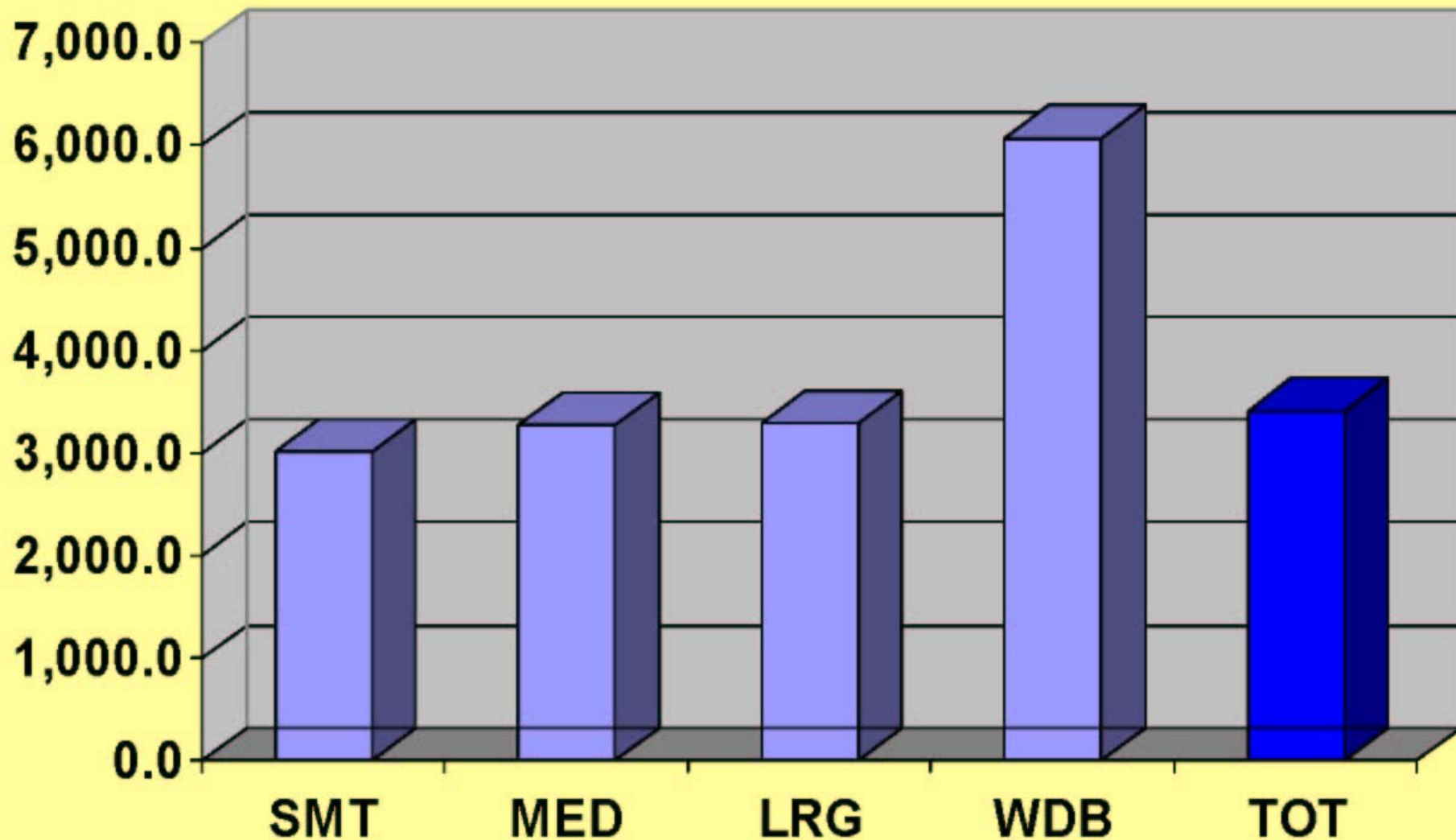
Miscellaneous questions relating to aircraft management and handling practices, and other matters.

Used Reserve Fuel

Question: **Aircraft Handling Events (AH1)**

Rate estimates based on all data collected through October, 2002.

Exposure Factor: **Events per 1 million Legs**



Confidence Regarding Accuracy



How confident are you that you reported accurately all the significant safety-related events that you experienced for the time period specified in the survey?

