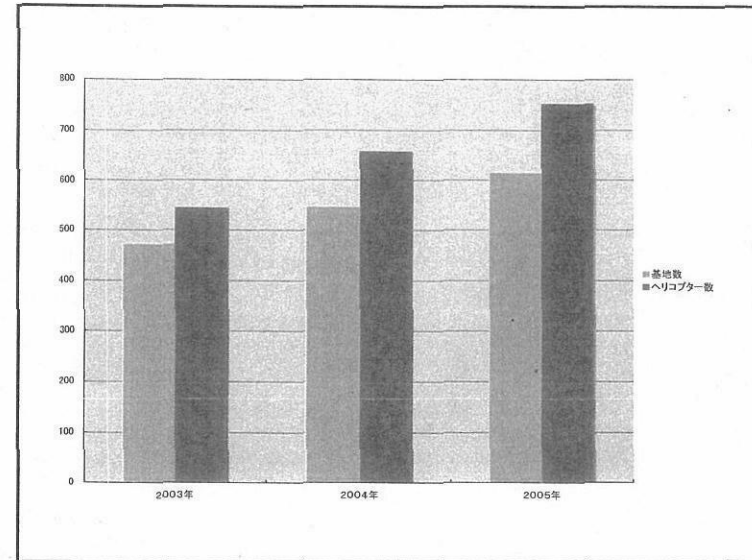
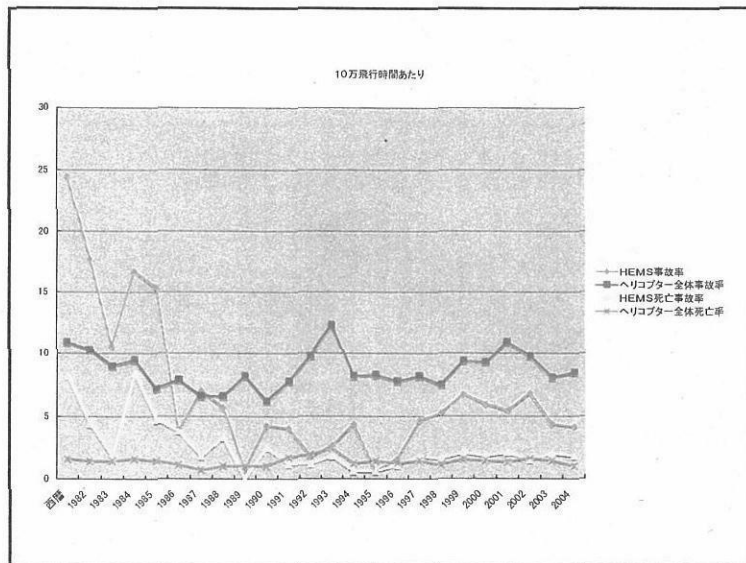




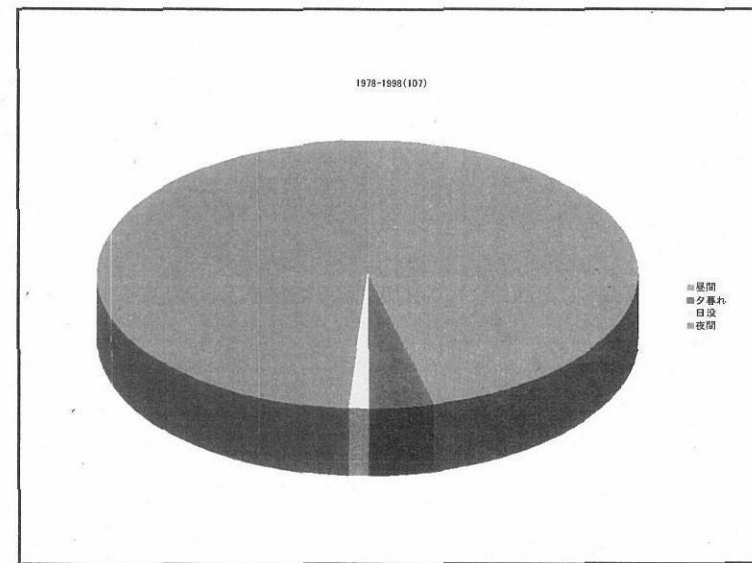
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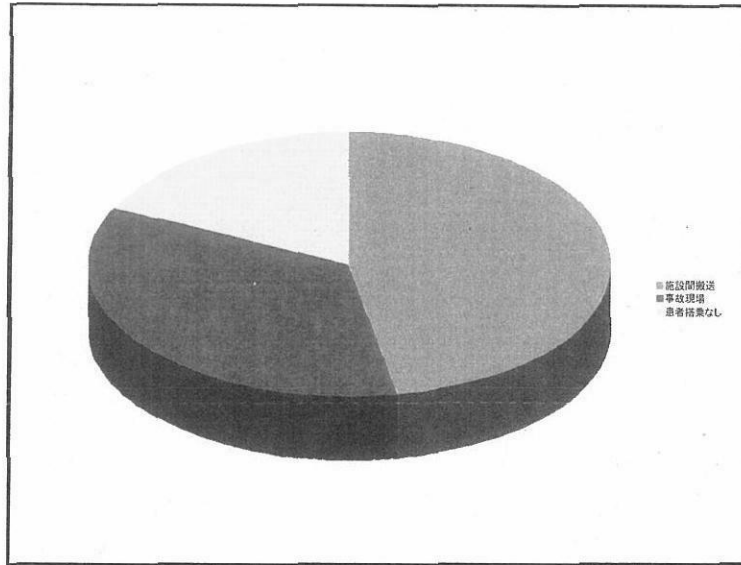
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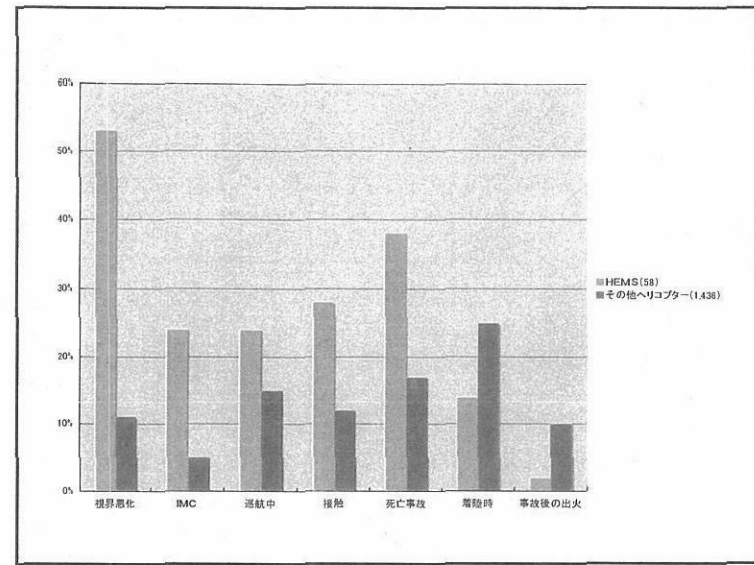
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6

**AIR MEDICAL ACCIDENT ANALYSIS: CONSOLIDATED PROBLEM STATEMENTS**

<b>Pilot Performance Issues:</b> <ul style="list-style-type: none"> <li>Loss of situational awareness</li> <li>Poor assessment of decision making</li> <li>Limited experience in make/land</li> <li>Flight crew not coordinated in operations type of aircraft</li> <li>Pilot disengaged autopilot</li> <li>Inadequate preflight planning</li> <li>Pilot failed to obtain weather briefing</li> <li>Pilot ignored weather briefing</li> <li>Pilot not wearing helmet</li> <li>Pilot confused VFR flight into IMC conditions</li> <li>Pilot descending to avoid IMC</li> <li>Pilot failed to maintain safe altitude</li> <li>Pilot failed to conduct area scan</li> <li>Pilot failed to conduct pre-landing briefing</li> <li>Inspector response to in-flight emergency</li> <li>Inadequate N1 (over RPM) control</li> <li>Pilot failed to recognize and avoid power settings</li> <li>Inspector pilot technique</li> <li>Pilot took off with sun in eyes</li> <li>Distraction point on not entered in exception response</li> <li>Pilot failed to use air speed warning to lower wings</li> <li>Pilot failed to hear or respond to ATIS special VFR clearance</li> <li>Pilot's attention is diverted to radio the cockpit</li> </ul>	<b>Aircraft Issues:</b> <ul style="list-style-type: none"> <li>Aircraft not IFR certified</li> <li>No autopilot or second pilot</li> <li>Poor configuration of navigation equipment</li> <li>Pilot unable to communicate altitude above 12</li> <li>Pilot unable to detect weather</li> <li>Pilot unable to detect wires</li> <li>Misreading inaccurate fuel quantity gauge</li> <li>Aircraft fuselage inadequate for existing air conditions</li> <li>Unreliable fuel tank</li> </ul>
<b>Environmental Issues:</b> <ul style="list-style-type: none"> <li>Night VFR operations</li> <li>Night IMC operations</li> <li>Reduced visibility</li> <li>Mountain operations</li> <li>High altitude operations</li> <li>Poor terrain</li> </ul>	<b>Infrastructure Issues:</b> <ul style="list-style-type: none"> <li>ATC unclear regarding pilot's request</li> <li>Inadequate vector by ATC to intercept location</li> <li>Pilot unable to obtain ATIS (Automated Terminal Information Service) information</li> <li>Airport uncontrolled</li> <li>Airport congested, requiring landing on ramp</li> <li>Helipad small</li> <li>Helipad surrounded by obstacles</li> <li>Towerlines did not meet marking criteria</li> <li>Powerlines not depicted on aeronautical charts</li> </ul>
	<b>Landing Zone Issues:</b> <ul style="list-style-type: none"> <li>Difficulty identifying landing zone</li> <li>No landing site supervisor</li> <li>Incorrectly adequate obstacle information on LZ</li> <li>Congested landing zone</li> <li>Obstacle-free environment</li> </ul>
	<b>Corporate/Management Issues:</b> <ul style="list-style-type: none"> <li>Corporate pressure to complete the mission</li> <li>Personal pressure to complete the mission</li> <li>"Standby Aircraft" change required equipment transfer</li> <li>Pre-flight preparations rushed</li> </ul>

Figure 1-26. Consolidated Problem Statements  
Adapted from: Air Medical Accident Analysis, 2001

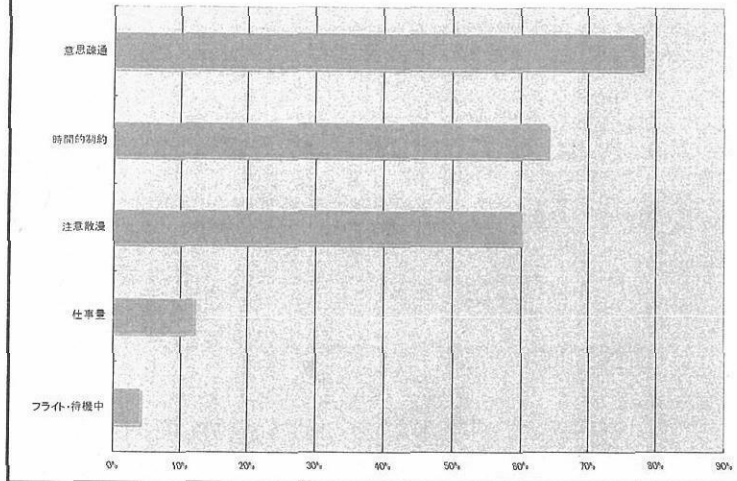
7

**事故要因 (NTSB1988)**

人的要因	68%
天候要因	30%
(死亡率) (61%)	
機械的トラブル	25%
接触	20%

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## 人的要因の内容



9

## 1988年のNTSBの勧告

- プログラムごとのマニュアルの整備(年次更新)
- 安全責任者などの役割の明確化
- フライトクルー訓練の実施
- 個人安全装備
- 勤務体制の基準設定(週48時間以内)
- 第三者機関の評価システム

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## 小児・周産期医療の崩壊と対策

- 世界的な流れ(歴史)
  - 米国・ヨーロッパ・オーストラリアなど
- 日本
  - 狭い地域内での医療システム
  - 広域搬送システムの欠如
- 欧米
  - 広域医療ネットワークの整備(人口300~1000万人対象)
  - 24時間搬送システムの整備

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## 今後の課題

- 安全性の確保と24時間体制の両立
  - 運航クルーの確保
  - 負荷のない勤務体制
  - 運航支援システムの確立
    - ヘリコプターIFR運航
    - GPS誘導システムの確立
  - 財政的な基盤の確立

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