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C.1 ATF Corridors

C.1.1 HGL Temperature and Depth

![Graphs showing HGL Temperature and Depth for 50 kW, 100 kW, and 240 kW. Each graph includes plots for HGL Temperature and HGL Height, with lines representing different layers.](image-url)
C.1.2 Ceiling Jet Temperature

---

Ceiling jet, ATF Corridors, 50 kW

Ceiling jet, ATF Corridors, 100 kW

Ceiling jet, ATF Corridors, 240 kW

Ceiling jet, ATF Corridors, 250 kW

Ceiling jet, ATF Corridors, 500 kW
C.2 FM/SNL Test Series

C.2.1 HGL Temperature and Depth

![Graph of HGL Temperature for FM/SNL Test 1](image1)

![Graph of HGL Height for FM/SNL Test 1](image2)

![Graph of HGL Temperature for FM/SNL Test 2](image3)

![Graph of HGL Height for FM/SNL Test 2](image4)

![Graph of HGL Temperature for FM/SNL Test 3](image5)

![Graph of HGL Height for FM/SNL Test 3](image6)

![Graph of HGL Temperature for FM/SNL Test 4](image7)

![Graph of HGL Height for FM/SNL Test 4](image8)
HGL Temperature, FM/SNL Test 5

HGL Temperature, FM/SNL Test 6

HGL Temperature, FM/SNL Test 7

HGL Height, FM/SNL Test 5

HGL Height, FM/SNL Test 6

HGL Height, FM/SNL Test 7
C.2.2 Plume Temperature

Plume Temperature, FM/SNL Test 1

Plume Temperature, FM/SNL Test 2

Plume Temperature, FM/SNL Test 3

Plume Temperature, FM/SNL Test 4

Plume Temperature, FM/SNL Test 5

Plume Temperature, FM/SNL Test 6

Plume Temperature, FM/SNL Test 7

Plume Temperature, FM/SNL Test 10
C.2.3 Ceiling Jet Temperature

C-16
Ceiling Jet Temperature, FM/SNL Test 11

Ceiling Jet Temperature, FM/SNL Test 12

Ceiling Jet Temperature, FM/SNL Test 13

Ceiling Jet Temperature, FM/SNL Test 14

Ceiling Jet Temperature, FM/SNL Test 15

Ceiling Jet Temperature, FM/SNL Test 16

Ceiling Jet Temperature, FM/SNL Test 17

Ceiling Jet Temperature, FM/SNL Test 21
C.3 iBMB Experiments

C.3.1 HGL Temperature and Depth

![Graph of HGL Temperature for iBMB Pool Fire](image1)

![Graph of HGL Height for iBMB Pool Fire](image2)

![Graph of HGL Temperature for iBMB Cable Fire](image3)

![Graph of HGL Height for iBMB Cable Fire](image4)
C.4  LLNL Enclosure Series

C.4.1  HGL Temperature

Layer Temperatures, LLNL Enclosure Test 1

Layer Temperatures, LLNL Enclosure Test 2

Layer Temperatures, LLNL Enclosure Test 3

Layer Temperatures, LLNL Enclosure Test 4

Layer Temperatures, LLNL Enclosure Test 5

Layer Temperatures, LLNL Enclosure Test 6

Layer Temperatures, LLNL Enclosure Test 7

Layer Temperatures, LLNL Enclosure Test 8
Layer Temperatures, LLNL Enclosure Test 49

Layer Temperatures, LLNL Enclosure Test 50

Layer Temperatures, LLNL Enclosure Test 51

Layer Temperatures, LLNL Enclosure Test 52

Layer Temperatures, LLNL Enclosure Test 53

Layer Temperatures, LLNL Enclosure Test 54

Layer Temperatures, LLNL Enclosure Test 55

Layer Temperatures, LLNL Enclosure Test 56
C.5 NBS Multi-Compartment Test Series

C.5.1 HGL Temperature and Depth
C.6 NIST/NRC Test Series

C.6.1 HGL Temperature and Depth

![HGL Temperature, NIST/NRC Test 1](image1)

![HGL Height, NIST/NRC Test 1](image2)

![HGL Temperature, NIST/NRC Test 7](image3)

![HGL Height, NIST/NRC Test 7](image4)

![HGL Temperature, NIST/NRC Test 2](image5)

![HGL Height, NIST/NRC Test 2](image6)

![HGL Temperature, NIST/NRC Test 8](image7)

![HGL Height, NIST/NRC Test 8](image8)
Open Door Tests to follow
C.6.2 Ceiling Jet Temperature

Ceiling Jet Temperature, NIST/NRC Test 1

Ceiling Jet Temperature, NIST/NRC Test 2

Ceiling Jet Temperature, NIST/NRC Test 4

Ceiling Jet Temperature, NIST/NRC Test 10

Ceiling Jet Temperature, NIST/NRC Test 13

Ceiling Jet Temperature, NIST/NRC Test 16
Ceiling Jet Temperature, NIST/NRC Test 17

Exp (Test 7-10)

MAGIC (TARGET 1)

Ceiling Jet Temperature, NIST/NRC Test 3

Exp (Test 7-10)

MAGIC (TARGET 1)

Ceiling Jet Temperature, NIST/NRC Test 5

Exp (Test 7-10)

MAGIC (TARGET 1)

Ceiling Jet Temperature, NIST/NRC Test 14

Exp (Test 7-10)

MAGIC (TARGET 1)

Ceiling Jet Temperature, NIST/NRC Test 15

Exp (Test 7-10)

MAGIC (TARGET 1)

Ceiling Jet Temperature, NIST/NRC Test 18

Exp (Test 7-10)

MAGIC (TARGET 1)
C.6.3 Oxygen Concentration
Open Door Tests to follow

C-37
C.6.4 Smoke Concentration
C.6.5 Pressure
C.6.6 Target Temperature and Target Heat Flux
Cable G Temperature, NIST/NRC Test 1

Heat Flux, Cable G, NIST/NRC Test 1

Cable G Temperature, NIST/NRC Test 2

Heat Flux, Cable G, NIST/NRC Test 2

Cable G Temperature, NIST/NRC Test 7

Heat Flux, Cable G, NIST/NRC Test 7

Cable G Temperature, NIST/NRC Test 8

Heat Flux, Cable G, NIST/NRC Test 8
C.6.7 Surface Temperature and Surface Heat Flux

Long Wall Temperature, NIST/NRC Test 1

Long Wall Heat Flux, NIST/NRC Test 1

Long Wall Temperature, NIST/NRC Test 2

Long Wall Heat Flux, NIST/NRC Test 2

Long Wall Temperature, NIST/NRC Test 7

Long Wall Heat Flux, NIST/NRC Test 7

Long Wall Temperature, NIST/NRC Test 8

Long Wall Heat Flux, NIST/NRC Test 8
### Experimental Heat Flux Data Not Available

---

**Long Wall Temperature, NIST/NRC Test 4**

<table>
<thead>
<tr>
<th>Time (min)</th>
<th>Temperature (°C)</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>Exp (TC North U−1−2)</td>
</tr>
<tr>
<td>5</td>
<td>Exp (TC North U−4−2)</td>
</tr>
<tr>
<td>10</td>
<td>MAGIC (Target 45)</td>
</tr>
<tr>
<td>15</td>
<td>MAGIC (Target 54)</td>
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</table>

**Long Wall Temperature, NIST/NRC Test 10**

<table>
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<th>Time (min)</th>
<th>Temperature (°C)</th>
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<tbody>
<tr>
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<td>Exp (TC North U−1−2)</td>
</tr>
<tr>
<td>5</td>
<td>Exp (TC North U−4−2)</td>
</tr>
<tr>
<td>10</td>
<td>MAGIC (Target 45)</td>
</tr>
<tr>
<td>15</td>
<td>MAGIC (Target 54)</td>
</tr>
</tbody>
</table>

**Long Wall Heat Flux, NIST/NRC Test 4**

<table>
<thead>
<tr>
<th>Time (min)</th>
<th>Heat Flux (kW/m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Exp (North G−1)</td>
</tr>
<tr>
<td>5</td>
<td>Exp (South G−4)</td>
</tr>
<tr>
<td>10</td>
<td>MAGIC (Target 45)</td>
</tr>
<tr>
<td>15</td>
<td>MAGIC (Target 48)</td>
</tr>
</tbody>
</table>

**Long Wall Heat Flux, NIST/NRC Test 10**

<table>
<thead>
<tr>
<th>Time (min)</th>
<th>Heat Flux (kW/m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Exp (North G−1)</td>
</tr>
<tr>
<td>5</td>
<td>Exp (South G−4)</td>
</tr>
<tr>
<td>10</td>
<td>MAGIC (Target 45)</td>
</tr>
<tr>
<td>15</td>
<td>MAGIC (Target 48)</td>
</tr>
</tbody>
</table>

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**Long Wall Temperature, NIST/NRC Test 13**

<table>
<thead>
<tr>
<th>Time (min)</th>
<th>Temperature (°C)</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>Exp (TC North U−1−2)</td>
</tr>
<tr>
<td>5</td>
<td>Exp (TC North U−4−2)</td>
</tr>
<tr>
<td>10</td>
<td>MAGIC (Target 45)</td>
</tr>
<tr>
<td>15</td>
<td>MAGIC (Target 54)</td>
</tr>
</tbody>
</table>

**Long Wall Temperature, NIST/NRC Test 16**

<table>
<thead>
<tr>
<th>Time (min)</th>
<th>Temperature (°C)</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>Exp (TC North U−1−2)</td>
</tr>
<tr>
<td>5</td>
<td>Exp (TC North U−4−2)</td>
</tr>
<tr>
<td>10</td>
<td>MAGIC (Target 45)</td>
</tr>
<tr>
<td>15</td>
<td>MAGIC (Target 54)</td>
</tr>
</tbody>
</table>
Experimental Heat Flux Data Not Available
Experimental Heat Flux Data Not Available
Experimental Heat Flux Data Not Available
Experimental Heat Flux Data Not Available Experimental Heat Flux Data Not Available
Experimental Heat Flux Data Not Available
Experimental Heat Flux Data Not Available Experimental Heat Flux Data Not Available
C.7 NIST Smoke Alarm Experiments

C.7.1 Ceiling Jet Temperature
C.8 SP Adiabatic Surface Temperature Experiments

C.8.1 HGL and Ceiling Jet Temperature
C.8.2 Plume Temperature

Plume Temperature, 1.1 m Diesel Fire, 1 m

Plume Temperature, 1.1 m Diesel Fire, 2 m

Plume Temperature, 1.1 m Diesel Fire, 3 m

Plume Temperature, 1.1 m Diesel Fire, 4 m

Plume Temperature, 1.1 m Diesel Fire, 5 m
C.9 Steckler Compartment Experiments

C.9.1 HGL Temperature and Depth

Temperature Profile, Steckler Test 10

Temperature Profile, Steckler Test 11

Temperature Profile, Steckler Test 12

Temperature Profile, Steckler Test 13

Temperature Profile, Steckler Test 14

Temperature Profile, Steckler Test 18

Temperature Profile, Steckler Test 710
C.10 UL/NFPRF Series I Experiments

C.10.1 Ceiling Jet Temperature
C.11 UL/NIST Vent Experiments

C.11.1 HGL Temperature and Depth

C-88
C.11.2 Ceiling Jet Temperature
C.12 USN High Bay Hangar Experiments

C.12.1 Plume Temperature
C.13 Vettori Flat Ceiling Experiments

C.13.1 Ceiling Jet Temperature

[Graphs showing temperature over time for different conditions]
VETTORI FLAT CEILING EXPERIMENTS

C-97
C.14 VTT Large Hall Tests

C.14.1 HGL Temperature and Depth
C.14.2 Plume Temperature

Plume Temperature, VTT Case 1

Plume Temperature, VTT Case 2

Plume Temperature, VTT Case 3
C.15 WTC Test Series

C.15.1 HGL Temperature and Depth

HGL Temperature, WTC Test 1

Exp (T_Upper)

MAGIC (Upper Layer temperature)

HGL Height, WTC Test 1

Exp (Height)

MAGIC (Layer Interface Height)

HGL Temperature, WTC Test 2

Exp (T_Upper)

MAGIC (Upper Layer temperature)

HGL Height, WTC Test 2

Exp (Height)

MAGIC (Layer Interface Height)

HGL Temperature, WTC Test 3

Exp (T_Upper)

MAGIC (Upper Layer temperature)

HGL Height, WTC Test 3

Exp (Height)

MAGIC (Layer Interface Height)
C.15.2 Surface Temperature

Ceiling Temperature (North), WTC Test 1

Ceiling Temperature (North), WTC Test 2

Ceiling Temperature (North), WTC Test 3

Ceiling Temperature (North), WTC Test 4

Ceiling Temperature (North), WTC Test 5

Ceiling Temperature (North), WTC Test 6
C.15.3 Surface Heat Flux

Ceiling Heat Flux, WTC Test 1

Ceiling Heat Flux, WTC Test 2

Ceiling Heat Flux, WTC Test 3

Ceiling Heat Flux, WTC Test 4

Ceiling Heat Flux, WTC Test 5

Ceiling Heat Flux, WTC Test 6
C.15.4 Oxygen Concentration

O$_2$ Concentration, WTC Test 1

O$_2$ Concentration, WTC Test 2

O$_2$ Concentration, WTC Test 3

O$_2$ Concentration, WTC Test 4

O$_2$ Concentration, WTC Test 5

O$_2$ Concentration, WTC Test 6