Tokyo 2020 Paralympic Games
Progress Report
Schedule

Opening Ceremony  25 August 2020
Closing Ceremony  6 September 2020
Daily Schedule

Paralympic Games Period: 25 August - 6 September 2020

26 August 2020  Horse Inspection  (all horses)

27 August 2020  Individual Competitions (all individuals in relevant grades)

28 August 2020  Individual Competitions (all individuals in relevant grades)

29 August 2020  Team Competition (Team athletes only)

30 August 2020  Horse Inspection (Horses qualified for Freestyle)

31 August 2020  Freestyle Competition (Athletes as qualified from Individual competitions)

NB. Subject to further review relating to climate mitigation planning
Appointed Officials

Technical Delegate
Hanneke Gerritsen (NED)

Foreign Veterinary Delegate
Yves Rossier (CAN)

Remaining officials to be discussed at the Technical Committee in-person for recommendation and final approval by FEI Board and IPC.
<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Country</th>
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</thead>
<tbody>
<tr>
<td>Sports Manager</td>
<td>Yasuhiko Haruta (JPN)</td>
<td>JPN</td>
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<tr>
<td>Service Manager</td>
<td>Ayako Nei (JPN)</td>
<td>JPN</td>
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<tr>
<td>Veterinary Service Manager</td>
<td>Hiroko Aida (JPN)</td>
<td>JPN</td>
</tr>
<tr>
<td>Technical Operations Manager</td>
<td>Mario Minoru Kuamoto (BRA)</td>
<td>BRA</td>
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</tbody>
</table>
Operated by PEDEN Bloodstock
Equestrian Park (Bajikoen)

Horse Entrance

Accred. Entrance

Operation Center / Horse Clinic / Grooms Accommodation

Spectator Entrance

Indoor Arena

Stables

Loading / Unloading

Main Office / Para Family Lounge

Grazing area
Field of play following sub-base layer installation

Stables

Training area A, training area B beyond

Foundations for tribune & media centre, judges tower beyond, indoor arena behind
Athlete Village

Located at Harumi

- Travel time – 45 minutes
- Laundry Service: Same day service
- NOC dedicated space
- Main Dinning – open 24 hours
- Hospital
- Fitness Centre - open 24 hours
- Sports Information Centre - 7:00-22:00
- Shopping at Village Plaza
- Post Office, Bank, Laundry, travel shop, Barber shop - at Village Plaza
Test Event (Ready Steady Tokyo): 12-14 August 2019

- Horse Arrivals
  - 6 Aug - international horses
  - 10 Aug - domestic horses

- Competition Programme (CCI3*-S)
  - 11 Aug: Horse Inspection @ 08:30
  - 12 Aug: Dressage @ 08:30
  - 13 Aug: Cross Country @ 08:30
  - 14 Aug: Horse Inspection @ 08:00, Jumping @ 10:00

- NOC/NPC/NF Observers Programme – 11-14 Aug (wrap-up session @ 11:00 on 14 Aug)

Setting the scene – Climate triggers and climate mitigation
Dr David Marlin, UK
Implications of thermal stress for horses............and human athletes

• Reduced performance
• Earlier onset of fatigue
• Increased risk of mistakes
• Increased risk of injury
• Increased risk of illness
Effects of thermal stress

- Recovery from Transport
- Pre-Competition Training
- Immediate Pre-Competition Warm-Up
- Effect on actual Competition
- Recovery within Competition – i.e. Multi-day
- Recovery following end of competition to pre-departure

**THERMAL EFFECTS ARE ACUTE & CUMULATIVE**
What determines how horses respond to thermal stress?

- Thermal environment (WBGT)
- Acclimatisation
- Management e.g. Cooling
- Individual variation – fitness, breed, ability, health, etc
- Intensity / Duration / Frequency of Exercise
Air Temperature & Humidity only tell part of the story.....
How thermally stressful has it been at previous Olympics?

![Graph showing PEAK WBGT Index (°C) for various Olympic locations and years.](image_url)
How thermally stressful has it been at previous Olympics?

<table>
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<tr>
<th>Year</th>
<th>Location</th>
<th>PEAK WBGT Index (°C)</th>
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<tr>
<td>1992</td>
<td>Barcelona</td>
<td>27</td>
</tr>
<tr>
<td>1996</td>
<td>Atlanta</td>
<td>34</td>
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<tr>
<td>2000</td>
<td>Sydney</td>
<td>19</td>
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<tr>
<td>2004</td>
<td>Athens</td>
<td>26</td>
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<tr>
<td>2008</td>
<td>Beijing</td>
<td>33</td>
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<tr>
<td>2012</td>
<td>London</td>
<td>20</td>
</tr>
<tr>
<td>2016</td>
<td>Rio</td>
<td>27</td>
</tr>
<tr>
<td>2020*</td>
<td>Tokyo</td>
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TEN YEAR AVERAGE
These contents will be more detailed than open access contents on the Internet.

• Hourly forecast in Two days (weather, temperature, humidity, wind, rainfall, possibility of thunder)

• Short range thunderstorm forecasting

• Wet-bulb globe temperature forecast (hourly) (effect of temperature, humidity, wind and sunlight on humans)

EXAMPLES OF FORECASTING OUTPUT FOR TOKYO 2020
Courtesy Tim Hadaway

! images are for illustration purposes (all of these contents will be available in both English and Japanese texts)
How to optimize horse performance in a challenging environment
Dr David Marlin, UK
Aims of climate management

• Prevention

• Equine athlete welfare

• Human athlete welfare

• Fair & valid competition
Risk is related to Climate, Intensity & Duration

- **Climate**
  - LOWER RISK: Blue to Green
  - HIGHEST RISK: Green to Orange

- **Exercise Intensity**
  - LOWER RISK: Green
  - HIGHEST RISK: Orange

- **Duration**
  - LOWER RISK: Short
  - HIGHEST RISK: Long
ALL horses and athletes are affected by HEAT

Jumping, Dressage & Para
• Large horses
• Working for long periods

Eventing
• Intense exercise
• Moderate duration
Climate Mitigation
Horse Preparation
Horse Preparation

• Pre-Travel

• Travel

• Management at & During Competition
Horse Preparation

Pre-Travel

• Acclimatisation

• Nutrition

• Cooling

• Health - especially respiratory
Horse Preparation

Pre-Travel

• Acclimatisation
  – Training harder and longer than normal at home to reach a higher body temperature
  – Scheduling training sessions at home for the hottest part of the day
  – Training at home on a treadmill in a heated room
  – Training at home using rugs
  – Travelling to a hotter or hotter and more humid climate in advance of competition
Horse Preparation

Pre-Travel

• Nutrition
  – Horses sweat more in warmer climates
  – Increased electrolytes loss in sweat and dehydration increase the risk of fatigue, muscle problems, respiratory problems and colic
  – Horses may require electrolyte supplementation
  – Changes in diet during TRAVEL are a major RISK FACTOR for COLIC!
Horse Preparation

Pre-Travel: Cooling Familiarisation & Training

“Aggressive cooling is almost certainly the single major factor in reducing heat related illness in horses in thermally stressful conditions.

Aggressive cooling of hot horses does not cause muscle damage and can greatly reduce the risk of collapse and injury or the development of heat-related illness”
Cooling

Ice & Water Buckets

Cold water Sprays

Misting tents
Horse Preparation

TRAVEL
• Nutrition - Avoid changes in diet as much as possible!
• Forage & water during travel to reduce stress
• Reduce hard feed/concentrate and feed small amounts frequently
• Arrival – allow horses to get heads down

Respiratory monitoring – “Shipping
Horse Preparation

TRAVEL

• Allow time to recover
  – *One day of recovery with limited exercise for each 8 hours (1 day) of road travel or ½ day recovery for each hour of flight, up to 5 days*

• Monitor feed and quantity of water intake and clinical signs
  – Bodyweight
  – Rectal temperature
  – Heart rate
  – Urination
  – Defecation
Horse Preparation

MANAGEMENT AT & DURING COMPE...

• Water – do not restrict
• Monitor daily
• Acclimatisation
• Avoid sunburn
• Avoid over-heating
• White or light flysheets and rugs
• Be aware of anhidrosis ("dry coat")
Horse Preparation

MANAGEMENT AT & DURING COMPETITION

• Warm-up
  – Reduce duration OR break-up and cool down

• Water
  – In Training
  – Before Competition
  – During Competition
  – After Competition

Use indoor arena as appropriate
Summary

- Preparation
- Recovery from travel
- Acclimatisation
- Cooling
- Individual horse management
Climate mitigation

FEI Veterinary, Medical and Technical committee reviewing

- Competition scheduling
- Monitored warm-up periods
- Adaptation of dress (removal of competition jackets)
- Monitored cooling
- No rugs for medal ceremonies
Thank you