

# 大牌球星的合作伙伴

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- 经营65条在英国西南部
- 最近开始编程的供应商提供的上行服务
- 配备高清和3D程序处理
- 在所有方向的国际光纤链路
- 干劲十足的技术专家

■ Is there an observation deck in Madley? But of course! You simply climb up onto the 'Madley1' antenna. From there you can see the operations buildings in Madley. In the background you can see another 32-meter antenna as well as three smaller 8-meter dishes. These antennas were previously used to uplink the Sky package and are now ready to be used by new broadcasting customers.

# BT's Earth Station Opens Up to Large Broadcasters



The worldwide company British Telecommunications Plc - (BT) has opened its enormous earth station in the small English town of Madley with its 65 satellite dishes to international broadcasters. They can use BT's latest technology to process their TV or ra-

dio programs and transmit them via the uplink station in Madley. Oldtimers in the satellite industry will be quick to tell you that broadcasters have been able to use the satellite dishes at Madley for quite some time now. Sure enough, the station in Madley,

■ Station Manager Nick Wood shows us the just-installed upconverter in 'Madley1'. They are ready for those customers who want to use the modern technology at Madley and broadcast their programming from here. "The incoming signals in the 70 MHz range are modulated to 6 GHz." (That's the uplink frequency for the C-band)





■ How large is 32 meters? Station Manager Nick Wood is standing in front of 'Madley1', the first dish erected at the Madley earth station. The transmission electronics inside the dish building are currently being upgraded and prepared for use by international broadcasters. Nick Wood enjoys taking time to read TELE-satellite magazine.

■ Emma Tennant is a Senior Media Relations Manager in the BT Press Office, Group Communications. Over the large expanse of the Madley earth station, she takes note of the most important events for placement in a Madley chronicle. The last chronicle was published in 2008 to celebrate the 30th year of the earth station.



located somewhere between Birmingham and Bristol, has been in operation since 1978. Back then it supported the much older earth station in Goonhilly (in far southwestern Great Britain), which was built in 1962.

The first dish that was erected in Madley was 32 meters in diameter and is still in operation today. Sure enough, it's currently being upgraded with a new digital transmitter.

Up until 2008 the Madley earth station was very active with TV and radio uplinks. Station Operator Nick Wood can tell us more: "Back then we made the start of Sky Television possible. That was February 5, 1989."

In 2008 a reorganization took place

and the broadcast division was "put into storage". It was agreed that BT would stay out of the satellite broadcast business for three years.

In 2011, these three years are now over and BT can once again begin offering these services. "During these three years we were very active in upgrading all of our technology", explains Nick Wood. He manages 100 earth station employees almost all of which have a technical background.

And there's plenty for them to do. David Woodhouse is the Station Operations Manager and gives us a long list of all the satellite dishes installed at Madley:

"Our three largest antennas have

a diameter of 32 meters", begins David Woodhouse, "we use them in the C-band, for example, to uplink the English Premier League to Asian programming providers." The Madley earth station can receive satellites and uplink to them all the way from 66E to 304E.

"From Madley we can reach so many satellites that we could theoretically transmit one channel in such a way that it could be received across two thirds of the world", comments the Satcom Operations Manager regarding the enormous range a TV programming provider could have through Madley.

But there's more: if a programming

operator actually does want to reach the entire world, BT also operates another earth station in Sao Paulo, Brazil. "We are best linked to the American continent by an optical sea cable."

In addition to the two huge 32-meter dishes, Madley also operates two 18-meter dishes. "These are used in the Ku-band primarily for sporting events."

Just a little smaller are the two 16-meter antennas for the C-band and two smaller 13-meter dishes that are also used in the C-band. "We use the 13-meter dishes, for example, to broadcast the BBC World Service for Africa", we learn from David Woodhouse, "and we use the smaller 8-me-



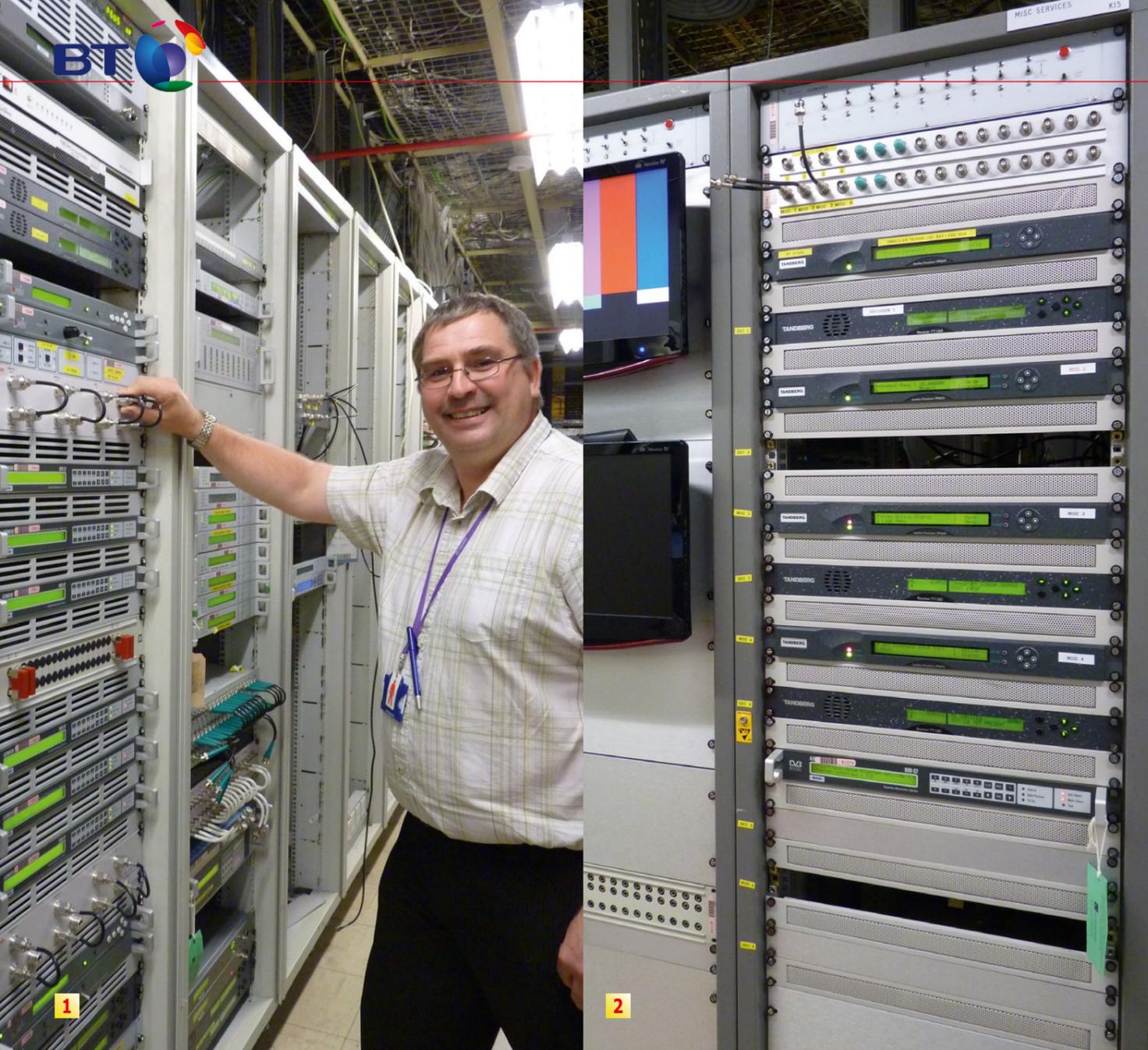
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1. In the Network Operations Center: Mal Furber (left) from the TV Operations team and David Woodhouse (right), Satcom Operations Manager. From here you can keep an eye on all of the uplinks.

2. Control Operations Technician Richard Harris can control all the BT Madley International Communications Centre dishes from here. "We wrote some portions of the control software ourselves", says Richard Harris proudly. He uses this software to watch over the function of each and every satellite dish at Madley. The monitor on the left displays a simplified representation of all the antennas in the security zone while the monitor to the right allows direct access to each individual antenna.



ter antennas to transmit the BBC World Service to the Americas via IN-TELSAT 805.”

Madley has another ten 8-meter dishes. In total there are 65 antennas that include smaller dishes that are used for reception only as well as numerous other dishes of all sizes that are used for testing or monitoring purposes.

Now that BT is once again allowed to take part in TV programming satellite transmissions, Madley can already boast their first success: “We are getting everything ready to receive the Arabic channels from BADR4 and re-transmit them”, reveals Station Manager Nick Wood.

What makes BT’s Madley earth station so attractive to providers? “Madley is linked by highly diverse optical cable networks with the BT Tower in

London and other key locations in America and our other customers.”

Clearly, BT is a worldwide networked company that can offer large broadcasters the ideal infrastructure to cover all the different applications that a broadcaster might need.

“Our highly qualified technical employees are another argument in favor of BT”, continues Nick Wood and then elaborates, “Here in Madley we have an emergency response team on standby that can immediately get underway should there ever be an emergency.”

Nick Wood explains exactly what this means: “When the Tsunami struck in 2004, our emergency response team from Madley was quickly onsite rebuilding the communications infrastructure.”

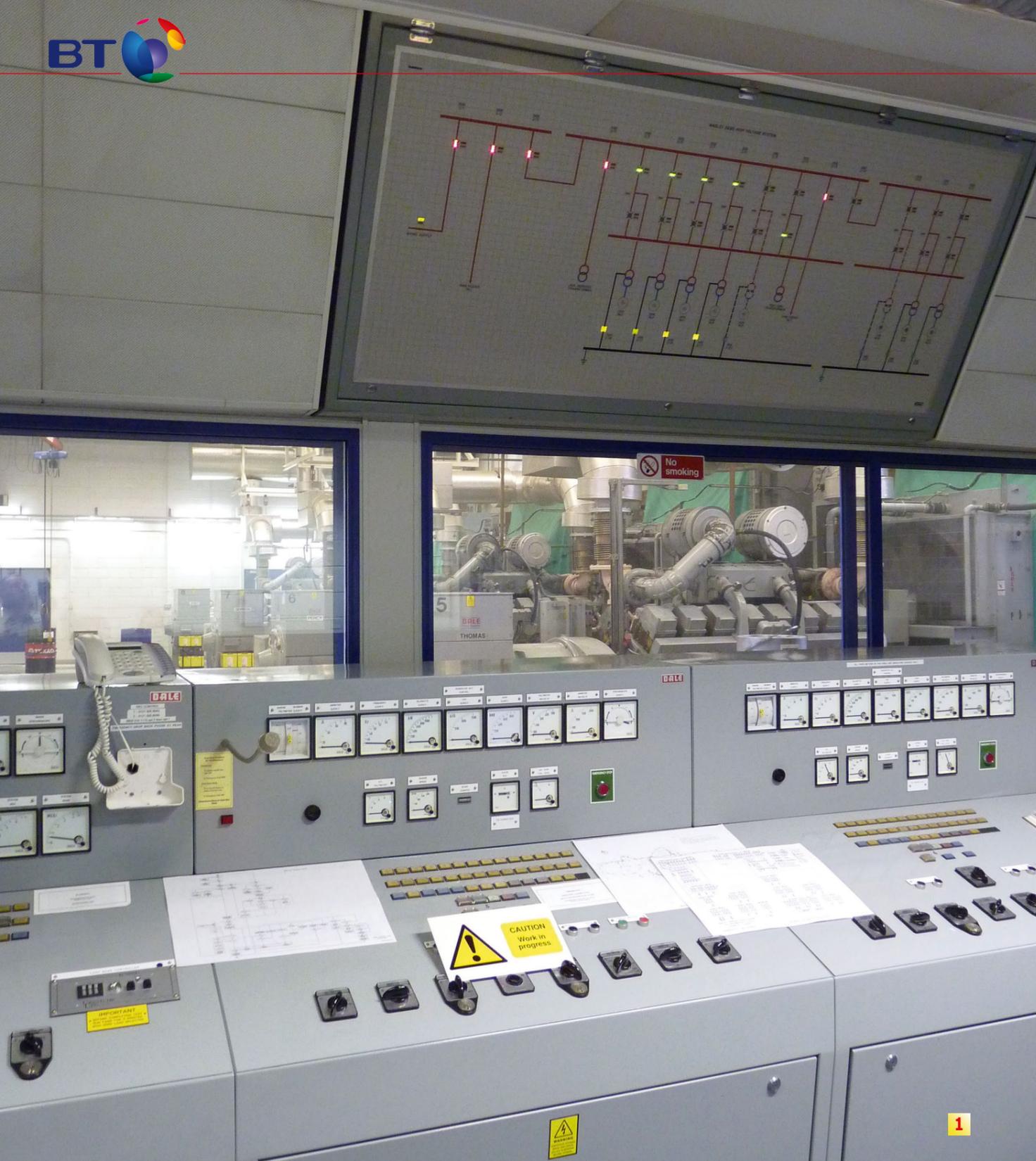
An emergency response like this can

**1. One of the most well-known of the international broadcasters is the BBC World Service. Satcom Operations Manager David Woodhouse proudly shows us the cabinet of modulators that prepare the BBC World Service for the satellite uplink.**

**2. Just installed: this is one of currently 14 HD modulators that are ready to be used by international broadcasting customers. “We can also use the HD modulators to modulate 3D channels”, explains David Woodhouse, “We use the same modulators for HD and 3D.”**

only be undertaken by a company that truly has the necessary experienced personnel available. “A similar situation occurred in 2005 with the earthquake in Kashmir and a more joyful event was the marriage of Prince William and Kate.”

The BT employees in Madley are highly motivated and are ready for anything that comes their way.



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For those broadcasters with ambitions of HD and 3D, the Madley earth station would seem to be the ideal solution to process their channels and retransmit them.

Senior Media Relations Manager Emma Tennant reveals to us who these broadcasting customers should contact: "That would be Client Manager Harry Formosa; he can be reached at [harry.formosa@bt.com](mailto:harry.formosa@bt.com)"

**1. What happens when there's a power outage? Within 45 seconds this operations center for four diesel emergency power generators jumps into action. "We have enough diesel for eight days of operation." Just like everything else in Madley, there are two of those emergency power generator stations.**

**2. These are four of a total of eight emergency diesel generators. They may be quiet now, but will start up immediately in an emergency. Nick Wood: "All eight of these generators provide 7.5 MW of power; currently we only need about 4.5 MW." This means that Madley has plenty of room for expansion to handle many new broadcasting customers. If you take a closer look you'll see a face painted on the side of the motor: it's an inside joke because the motor casing resembles a very well-known character in children's books here in Great Britain: Thomas The Tank Engine.**

**3. BT is prepared for every eventuality. This can be seen in this emergency response vehicle. If there's a catastrophe, no matter where in the world, the Madley employees go and repair the communications systems and also install emergency communications systems if necessary. This demonstrates the extensive know-how of Madley's technical employees.**



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