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**Keeping up with the Supersonic Joneses: Public  
Responses to British Techno-Nationalism during  
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# Keeping up with the Supersonic Joneses: Public Responses to British Techno-Nationalism during the 1967 Sonic Boom Tests

## Abbreviations

BAC – British Aircraft Corporation

MinTech – Ministry of Technology

SST – Supersonic Transport

ITN – Independent Television News

## A Note on Terms

During the 1960s, the terms ‘sonic bang’ and ‘sonic boom’ were used interchangeably, although ‘boom’ is considered correct in the present day.

‘Concorde’ was spelled ‘Concord’ in Britain until December 1967, when Tony Benn agreed to use the French spelling of the word. In quotations from before this alteration, the British spelling has been left unchanged.

## Contents

|                     |    |
|---------------------|----|
| Introduction .....  | 6  |
| Chapter One .....   | 15 |
| Chapter Two .....   | 20 |
| Chapter Three ..... | 25 |
| Conclusion .....    | 30 |
| Afterword .....     | 32 |

# Introduction

Just after 2pm on 6<sup>th</sup> July 1967, the still summer afternoon in Dorset was interrupted by an ear-splitting double boom. This was the result of an RAF Lightning fighter jet breaking the sound barrier 43,000 ft above, and marked the beginning of Exercise Summer Sky – a series of eleven sonic booms produced over Dorset, Bristol and London that month to acclimatise the public to the sound of the sonic boom.<sup>1</sup> The goal of the exercise was to determine whether the Anglo-French SST, Concorde, would be able to fly at supersonic speeds over populated areas.

By 1967, Britain was grappling with the consequences of aviation development in other Western countries, which threatened its national image as an innovative and world-leading manufacturer of aeroplanes.<sup>2</sup> British industry in this period was marked by a profound ‘techno-nationalism’, an ideology which suggests the success of a nation is based on its capacity to invent and produce new technologies.<sup>3</sup> In Britain, this manifested in what has been termed ‘bipartisan technological chauvinism’ – an idea that Britain was uniquely skilled in the field of technology, which led to the development of increasingly ambitious projects.<sup>4</sup> Concorde was a product of this environment - considered to be the next logical step in aviation on both sides of the Atlantic, supersonic aviation became viewed as the last chance to overtake the Americans.<sup>5</sup> By 1967, American supersonic transport designs were still resigned to the drawing board whilst Concorde prototype production was well underway. If Concorde could succeed in its promise to become the airliner of the future,

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<sup>1</sup> D.R.B. Webb, F.L. Hunt, R.J. Pallant, W.L. Walters, *Sonic Bang Measurements During Exercise Summer Sky*, (Her Majesty's Stationery Office, 1971)

<sup>2</sup> For more on Britain's aviation tradition, see: David Edgerton, *England and the Aeroplane*, 2<sup>nd</sup> Edn (Penguin, 2013). For a more general account of British ideas of technological superiority, see: David Edgerton, *The Rise and Fall of the British Nation*, (Allen Lane, 2018) p.327-329

<sup>3</sup> David Edgerton, *The Shock of the Old*, 2<sup>nd</sup> Edition, (Profile Books, 2008) p.105

<sup>4</sup> P.D. Henderson, 'Two British Errors: Their probable size and some lessons', *Oxford Economic Papers*, 29:2 (1977) pp.159-205 (p.186)

<sup>5</sup> See: Andrew Wilson, *The Concorde Fiasco*, (Penguin, 1973) pp.13-23

Britain could try to reclaim its technological edge and compete economically with the United States.<sup>6</sup>

Not all were convinced Concorde would be a success. The treasury worried the astronomical sums invested would not be recovered through sales, partly due to an inherent problem with supersonic aviation – the sonic boom.<sup>7</sup> As an aircraft flies faster than the speed of sound, it produces a shock wave along its flight path heard by listeners on the ground as a loud ‘double-boom’ sound, which has the potential to break glass, damage property and disturb or startle people.<sup>8</sup> This created a unique challenge when selling Concorde, as the sonic boom would be a significant nuisance to people living under its flight paths. By 1964, American sonic boom testing in Oklahoma City demonstrated the phenomenon could be incredibly disruptive to everyday life and would damage property.<sup>9</sup> The Treasury warned that the results of the Oklahoma tests indicated supersonic transport would not be viable over land, yet excepting a single demonstration of the sonic boom to government officials at RAF Upwood in 1965, sonic boom tests were put off in Britain until Exercise Summer Sky in 1967.<sup>10</sup> This was planned to be followed by a more comprehensive test which would see a total of 342 sonic booms of increasing regularity and intensity over Hull, however this was cancelled shortly before Exercise Summer Sky due to concerns that the damage it would cause ‘could constitute an indictable misdemeanour at common law’.<sup>11</sup>

Exercise Summer Sky’s relation to techno-nationalism went deeper than just the connection to Concorde – the tests were conducted less for scientific research, and more to challenge opposition to the sonic boom overseas and prove that Britain was playing a role in resolving the sonic boom problem. Although comprehensive data was available from the

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<sup>6</sup> For a more in-depth study of Concorde’s relationship to British techno-nationalism, see: Tom Kelsey, ‘The Retreat from ‘High Technology’ in Post-War Britain’, *English Historical Review*, 138 (2023) pp.1363-1392

<sup>7</sup> *Ibid*, p.1371

<sup>8</sup> ‘Sonic Boom’, *United States Air Force*, < <https://www.af.mil/About-Us/Fact-Sheets/Display/Article/104540/sonic-boom/#:~:text=The%20sound%20heard%20on%20the,as%20it%20descends%20two%20or> > [Accessed 14 April 2025]

<sup>9</sup> See: David Suisman, ‘The Oklahoma City Sonic Boom Experiment and the Politics of Supersonic Aviation’, *Radical History Review*, 121 (2015) pp.169-195

<sup>10</sup> Kelsey, *The Retreat from ‘High Technology’ in Post-War Britain*, p.1371-2; British Pathé, *Sonic Bangs for Aviation Minister*, (1965) <[SONIC BANGS FOR AVIATION MINISTER - British Pathé](#)>

<sup>11</sup> London, The National Archives of the UK (MRC), FV 2/557, Letter to Prime Minister from Patrick Gordon Walker on sonic boom tests, 3<sup>rd</sup> July 1967

Oklahoma City tests and French sonic boom research, a programme of sonic boom testing could prove to both to the world and the British public that, in the words of Minister of Aviation John Stonehouse: 'as one of the progenitors of SST's we are taking this matter seriously'.<sup>12</sup> Other countries were concerned that supersonic overflights of their territories would be disruptive to their people. MinTech was particularly concerned that flights over the continental United States could be banned under the rationale that the sonic boom was disruptive until the American SST was flying, depleting the potential market for Concorde and sabotaging Britain's lead over the Americans. If the British carried out their own sonic boom tests, any potential decision to uphold supersonic flying in America would be easier to challenge.<sup>13</sup> Preserving the British lead was paramount to the success of the project – the American SST was expected to be both faster and able to carry more passengers, and the success of Concorde hinged on the ability to sell as many aircraft as possible to airlines before it entered the market.<sup>14</sup> The 1967 sonic boom tests were a direct attempt by Britain to increase Concorde's chance of economic success and keep their lead in the race to develop supersonic transport.

Instead of easing concerns abroad, sonic boom testing strengthened the opposition to Concorde at home. Experiencing the sonic boom first-hand created fears that if supersonic travel were to become mainstream, regular bangs would become an inescapable feature of the soundscape of modern life. Exercise Summer Sky reveals that the relationship between the British public and the government's techno-nationalist endeavours during the late 1960s and early 1970s was a tense one. Unlike nuclear power stations, motorways and urban planning projects, which received relatively localised opposition, sonic booms would impact people across the country if supersonic transports emerged as the future of airline travel. Sonic boom testing in Britain demonstrates that negative impacts of techno-nationalism were felt not only at an economic and political level as money was spent on unviable projects, but also at a social level as the sonic boom threatened to disrupt the lives of the British public. Techno-nationalism was not solely contested in Westminster and Whitehall, but also in the lives of the British public, who supported or opposed using

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<sup>12</sup> TNA, HF 15/7, Draft memorandum by the Minister of Aviation on Sonic Boom Tests, 2<sup>nd</sup> February 1967

<sup>13</sup> *Ibid*

<sup>14</sup> Kelsey, *The Retreat from 'High Technology' in Post War Britain*, p.1369

Britain's resources for competitive technology as they felt the direct impacts of the state's projects. By taking a social and sensory history approach to what Tom Kelsey calls the 'last feeble gasp of British techno-nationalism', this dissertation argues that the story of the decline of British techno-nationalism is not only one of politicians, engineers, and economists, but of ordinary people who held their own opinions on British technological progress.<sup>15</sup>

## Literature Review

Techno-nationalism is a prominent theme within British technological history. Although the declinist argument Edgerton disputed has itself declined in popularity in favour of a nationalist emphasis on British aviation success, *England and the Aeroplane* provides an excellent insight to the British enthusiasm for aviation throughout the twentieth century.<sup>16</sup> Tom Kelsey has examined the techno-nationalism of the late 1960s and early 1970s in relation to Concorde and the Advanced Gas Reactor, arguing that techno-nationalism in Britain was not solely a product of national prestige but also an attempt to exert economic power in areas where it was possible Britain could outperform the United States.<sup>17</sup> Both Edgerton and Kelsey argue that there was a decline in techno-nationalism in the government by the close of the 1960s, whilst R.J. Morris argues that the British public lost faith in the government's application of technology at the same time.<sup>18</sup> This dissertation attempts to merge these timelines, suggesting not only that there is a social history of British techno-nationalism, but that a decline of techno-nationalism in both the government and the general public happened simultaneously.

Techno-nationalism itself poses a problem for British histories of technology - H.S. Torrens reflected that the 'ancestor worship' of British engineers and technological objects results in

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<sup>15</sup> Kelsey, *The Retreat from 'High Technology'*, p.1365

<sup>16</sup> Edgerton, *England and the Aeroplane*; 'England & The Aeroplane: An interview with historian David Edgerton', *Hush-Kit*, 28<sup>th</sup> September 2017, < <https://hushkit.net/2017/09/28/england-the-aeroplane-an-interview-with-historian-david-edgerton/>>

<sup>17</sup> Kelsey, *The Retreat from 'High Technology'*

<sup>18</sup> *Ibid* p.1363; Edgerton, *The Rise and Fall of the British Nation*, p.327-338; R.J. Morris, 'The 1960s – Days of Innocence' in *Preserving the Sixties: Britain in the 'Decade of Progress'* ed. by T. Harris and M. O'Brien Castro (Palmgrave Macmillan UK, 2014) pp.33-50 (p.44)

entrenched narratives in the public sphere.<sup>19</sup> This problem is particularly evident in the case of Concorde. Upon Concorde's retirement in 2003, Guillaume De Syon remarked that most accounts of the project 'fed the notion of a special destiny' and avoided 'uncomfortable issues' raised during its development.<sup>20</sup> As of 2025, the situation has changed little. Most books feature a nostalgic, techno-nationalist bent and are somewhat hostile to Concorde's critics.<sup>21</sup> Tom Kelsey is the only historian to have studied opposition to Concorde in Britain, primarily focusing on a political and economic perspective as opposed to more public concerns such as the sonic boom, arguing that wariness of state power was central to the opposition to Concorde.<sup>22</sup> The nostalgic view of Concorde in Britain perhaps explains why the aircraft has attracted less critical scholarly attention than the failed American SST programme.<sup>23</sup>

In recent years, a number of historians and other academics have studied criticism of technological projects in post-war Britain from a social perspective. This is most visible in studies of nuclear power and weapons in Britain, the most comprehensive being Jonathan Hogg's *British Nuclear Culture*.<sup>24</sup> Katrina Navickas has studied opposition to construction of the British super grid in the 1950s, primarily examining the conflicts between differing understandings of amenity and cultural ideas about the British countryside.<sup>25</sup> Michael Dnes also offers a social perspective of the successful opposition to London's ring roads during the late 1960s and early 1970s.<sup>26</sup> Whilst these studies have started a historiography of British opposition to technology, in most the distinct techno-nationalism of the post-war period is

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<sup>19</sup> H.S. Torrens, 'Some Thoughts on the History of Technology and Its Current Condition in Britain', in *History of Technology Volume 22*, ed. by Graham Hollister-Short (Bloomsbury, 2001) pp.223-233 (p.226-7)

<sup>20</sup> Guillaume De Syon, 'Consuming Concorde', *Technology and Culture*, 44:3 (2003) pp.650-654 (p.650)

<sup>21</sup> See: Mike Bannister, *Concorde* (Penguin, 2023); Ted Talbot, *Concorde: A Designer's Life* (The History Press, 2013). A possible exception is Jonathan Glancey, *Concorde: The Rise and Fall of the Supersonic Airliner* (Atlantic Books, 2013), which contains some fair assessment of critics but still remains rather nostalgic throughout.

<sup>22</sup> Tom Kelsey, 'Fighting the Supersonic Deception: the critics of Concorde in post-war Britain' (Forthcoming), *English Historical Review* (2025); Tom Kelsey, *The Retreat from 'High Technology'*

<sup>23</sup> See: Joshua Rosenbloom, 'The Politics of the American SST Programme: Origin, Opposition and Termination', *Social Studies of Science*, 11:4 (1981) pp.403-423; Eric Conway, *High-Speed Dreams: NASA and the Technopolitics of Supersonic Transport*, (John Hopkins University Press, 2005)

<sup>24</sup> Jonathan Hogg, *British Nuclear Culture: Official and Unofficial Narratives in the Long 20<sup>th</sup> Century*, (Bloomsbury, 2016); See also: Horace Herring, *From Energy Dreams to Nuclear Nightmares: Lessons from the Anti-Nuclear Power Movement in the 1970s*, (Jon Carpenter, 2005)

<sup>25</sup> Katrina Navickas, 'Conflicts of power, landscape and amenity in debates over the British Super Grid in the 1950s', *Rural History*, 30 (2019) pp.87-103

<sup>26</sup> Michael Dnes, *The Rise and Fall of London's Ringways, 1943-1973*, (Routledge: 2020)

implicit or absent. This dissertation attempts to bridge the gaps in these two areas – histories of British techno-nationalism often overlook social aspects, whilst social histories of British opposition to technology often overlook the centrality of techno-nationalism in Britain’s technological projects in the 1960s.

Although British sonic boom testing is rarely more than a footnote in the history of Concorde’s development, the Oklahoma City sonic boom tests have received attention from historian David Suisman, who argues that the sonic boom can be considered an example of the state’s ‘acoustic power’ by linking the sensory experience of the public to the techno-nationalist aims of the American government.<sup>27</sup> Through applying this thesis to the British context, the sonic boom tests provide an insight into the relationship between the British public and the state’s techno-nationalist development of new technologies during the post-war era, and further understand why historians such as R.J. Morris have argued the British public lost their faith in technology during the late 1960s.<sup>28</sup>

## Methodology

As histories of British techno-nationalism are primarily focused on political or economic histories of the ideology, it is important to include histories of public engagement with techno-nationalism to attain a more holistic account of British techno-nationalism.<sup>29</sup> As the first chapter of this dissertation will explore, techno-nationalism as a term is anachronistic, and tied to a number of different discourses in British politics. To understand the public’s relationship to British technology and techno-nationalism, a number of different sources have been used.

Public opinion on techno-nationalism is most visible in the ‘Letters to the Editor’ sections of newspapers, both national and local.<sup>30</sup> Although sometimes disregarded as

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<sup>27</sup> David Suisman, *The Oklahoma City Sonic Boom Experiment*

<sup>28</sup> Morris, p.44

<sup>29</sup> Although David Edgerton’s *England and the Aeroplane* looks at techno-nationalism in British society, this is largely confined to representations of technology in British popular culture as opposed to the views of the public

<sup>30</sup> For the purposes of this essay, the ‘public’ refers to those who were not members of the government, the press, or any other body involved with the design, development or sales of Concorde. This deliberately includes aerospace workers, who were less involved with the political dimensions of techno-nationalism and more with the social dimensions, and hold important views on the subject which should be included in studies of popular techno-nationalism.

being written by 'Disgusted of Tunbridge Wells', letters to newspapers have been increasingly recognised as a means of political participation by which writers could air their views on current affairs and editors could gain a better understanding of public opinion.<sup>31</sup> Although all kinds of people wrote such letters, including politicians and those involved with Concorde's development, unless mentioned otherwise the letters studied in this dissertation are to best knowledge written by those unaffiliated with the project. Allison Cavanagh argues that writing letters to newspapers was understood in the nineteenth century as a forum for people's opinions which allowed the public to feel empowered in politics.<sup>32</sup> The case of opposition to Concorde provides an excellent modern example of this phenomenon. One dedicated group, the 'Anti-Concorde Project', harnessed the power of the press by writing letters encouraging others affected by the sonic boom tests to support the project, whilst its convener, Richard Wiggs, frequently disputed the coverage of Concorde and the statements of its manufacturers in the letters pages of national newspapers.<sup>33</sup> Although letters to the editor have a tendency to capture the strongest opinions on the topic, and the letters presented are influenced by the editorial policy of the newspaper they are published in, they remain an important source for understanding how those who opposed or supported techno-nationalism framed their arguments, and identifying common arguments within the public.<sup>34</sup>

Other press sources can help historians to access the public opinion towards the sonic boom tests. A statistical view can be obtained through the results of a public opinion poll carried out by an independent advertising agency on behalf of *The Guardian*.<sup>35</sup> The views of some people can be found in interviews with news companies such as ITN, British Pathé and British Movietone, although these should not be used in isolation to determine the balance of public opinion as the interviews presented reflect the editorial policies of the

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<sup>31</sup> Aled Jones, *Powers of the Press: Newspapers, Power and the Public in Nineteenth-Century England*, (Routledge: 2016) pp.187-8

<sup>32</sup> Allison Cavanagh, 'Letters to the Editor as a Tool of Citizenship' in *Letters to the Editor: Comparative and Historical Perspectives*, ed. by Allison Cavanagh and John Steel, (Palgrave Macmillan, 2019) pp. 89-108 (p.90)

<sup>33</sup> See Kelsey, *Fighting the Supersonic Deception* for analysis of the ACP's advertisements in newspapers; C. Jill Frith, 'Fighters for Peace', *Wells Journal*, 21<sup>st</sup> July 1967, p.12; Richard Wiggs, 'Concorde: Where will it fly?' (Letter to the Editor), *The Guardian*, 20<sup>th</sup> December 1969, p.8

<sup>34</sup> Adrian Bingham, *Family Newspapers? Sex, Private Life and the British Popular Press 1918-1978* (Oxford University Press, 2009) p.9

<sup>35</sup> David Fairhall, 'Boom over Bristol', *The Guardian*, 21 July 1967, p.8

news organisations carrying them out.<sup>36</sup> This being said, the 'vox pop' interview style which came into fashion during the 1960s allows historians to access the views of people who may not write letters to newspapers, and provides more diversity to the sample of public opinion accessible to the historian.

Alongside the focus on social histories of techno-nationalism, this dissertation implements some ideas from the field of sensory history to understand responses to sound. Peter Bailey's understanding of the subjectivity of noise is central to this dissertation – whilst some people were not bothered by the sonic boom tests, others were disturbed by them and considered the sonic boom an example of dangerous state power - understanding why people had varied reactions can help historians in their analysis of sound and its relation to technology.<sup>37</sup> R. Murray Schaefer's thesis that the production of noise has been considered throughout history as a signifier of power is also useful in analysing public opposition to the sonic boom, and helps to explain why sound was considered such a threat by many members of the public.<sup>38</sup> Whilst this dissertation is not the first to consider the sonic boom an example of state power – David Suisman also reaches a similar conclusion in his article on the Oklahoma sonic boom tests - it is the first to study the phenomenon within the British context of noise abatement and the desperate techno-nationalism driving the Concorde programme.

This dissertation consists of three chapters. The first chapter furthers the understanding of techno-nationalism within the British public, proving that it was not only contested at a political and economic level. The second chapter applies a sensory lens to understand how sonic boom testing highlighted existing power imbalances between people and the state in 1960s Britain. The final chapter adds to the limited scholarship studying the British public's decline in faith towards technology, arguing that techno-nationalist projects

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<sup>36</sup> For more information on the editorial policies of newsreel companies in the 1960s, see: Martin Conboy, *Journalism: A Critical History*, (SAGE, 2004) p.203; Howard Smith, 'British Newsreels' in *The Contemporary History Handbook*, ed. by Brian Brivati, Julia Buxton and Anthony Seldon (Manchester University Press, 1996) pp.424-5

<sup>37</sup> Peter Bailey, 'Breaking the Sound Barrier', in *Hearing History: A Reader*, ed. by Mark M. Smith, (University of Georgia Press, 1996) pp.23-35

<sup>38</sup> R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World*, (Inner Traditions, 1993) p.97-8

such as Concorde contributed to the understanding of technology during the late 1960s as dangerous and misapplied, resulting in a wider decline of trust in technology.

# Chapter One

## Techno-Nationalism and the British Public

In addition to previous political and economic histories of techno-nationalism, this chapter argues techno-nationalism was an ideology which was also contested at a public level. During the 1960s, some members of the British public were deeply enthusiastic towards techno-nationalist projects, whilst others were concerned at the lengths the government would go to ensure Britain's technological lead. This chapter proves that in 1960s Britain, there exists a traceable history of both support and opposition to techno-nationalism amongst the public, which deserves further study in British social histories of technology.

Before understanding how the British public understood techno-nationalism, it is important to define the term itself. In *The Shock of the Old*, David Edgerton describes techno-nationalism as a phenomenon which assumes the success of a nation is based around its capacity to invent and produce technology.<sup>39</sup> Tom Kelsey has appropriately argued for the expansion of techno-nationalism to describe an inherently futuristic nationalism arguing a nation may increase its geopolitical power through the development and sales of nationally designed and produced high-technologies.<sup>40</sup> Techno-nationalism, for the purposes of this dissertation, should be understood as a combination of these two definitions.

It is also important to understand 'techno-nationalism' as an anachronistic term. Before looking at how the concept was received among the public, it is important to first explore the terms and ideas which were used to describe the ideology before a specific term had been coined. The modern term is most recognisable in the idea of the 'prestige project', a contemporary term - often applied pejoratively by critics of techno-nationalism - describing technological or scientific undertakings specifically designed to enhance the status of a nation on the world stage. This moniker was applied throughout the 1960s to a

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<sup>39</sup> David Edgerton, *The Shock of the Old*, p.105

<sup>40</sup> Kelsey, *Retreat from High Technology*, p.1367-8

number of different projects, such as the atomic bomb, the Blue Streak inter-continental ballistic missile, and the BAC TSR-2 strike aircraft.<sup>41</sup> Concorde was perhaps the most frequently derided on these grounds, and the term was a cause of anxiety for its proponents - in 1964, following the cancellation of the TSR-2, the application of the term to Concorde by the Wilson government caused significant panic within the Federation of British Industries, who feared the term suggested renewed plans for cancellation.<sup>42</sup>

The driving force behind 'prestige projects' was the idea of technological 'progress', which can be understood in the context of post-war Britain as a whiggish and technologically determinist faith in science and technology to continually improve over time, bringing with it improved human standards of living.<sup>43</sup> Concorde, believed by many within the government and the wider public as the next step in the natural evolution of air travel, was considered a part of this technological progress.<sup>44</sup> 'Progress' also held implicitly nationalist connotations. Gabrielle Hecht and Paul Edwards argue that technological development was central to the projection of geopolitical power during the cold war - 'progress' was not solely about improvement of technology, but a measure of a nation's position in the world.<sup>45</sup> Britain's hydrogen bomb, for example, was partially developed to maintain status as a leading military power, spurred by the fear that a country which did not possess the newest technology would not be taken seriously on the world stage.<sup>46</sup> Concorde, as a part of this international technological competition, was valuable to the British government not only through the economic benefits it could provide, but also through the mastery of technology it demonstrated to the world. Criticism of technological 'progress' became a contentious area into which many were cautious to tread. Opponents of Concorde were frequently accused of unpatriotically sabotaging Britain's technological progress – a typical accusation came from Derek J. Hardy, chief project engineer at the aircraft manufacturer Saunders-Roe,

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<sup>41</sup> For example, see: The Observer, 'Prestige', *The Observer*, 15<sup>th</sup> November 1964, p.10

<sup>42</sup> 'Concorde Project 'Anxiety' – says F.B.I.', *The Birmingham Post*, 29 October 1964, p.7

<sup>43</sup> For a brief history of the term, see: Bruce Mazlish and Leo Marx, 'Introduction' in *Progress: Fact or Illusion?*, 4<sup>th</sup> edition, ed. by Leo Marx and Bruce Mazlish, (University of Michigan Press, 2001) pp.1-7. Although not mentioning 'progress' explicitly, some of the ideas which underpinned the idea in the British context may be found in: R.J. Morris, 'The 1960s – Days of Innocence'

<sup>44</sup> Tom Kelsey, *Fighting the Supersonic Deception*, p.4

<sup>45</sup> Gabrielle Hecht and Paul N. Edwards, 'The Technopolitics of the Cold War: Towards a Transregional Perspective' in *Essays on Twentieth Century History*, (Temple University Press, 2010) pp.271-314 (p.286)

<sup>46</sup> Lorna Arnold, *Britain and the H-Bomb*, (Palgrave, 2001) p.55-6

who wrote to *The Times*: ‘Do the members of the Anti-Concord Project believe that Britain should remain static in the twentieth century whilst other advanced technological nations stride rapidly into the twenty-first?’<sup>47</sup> Those who criticised Concorde or the sonic boom, including Richard Wiggs, often stressed that they were not an ‘enemy of progress’ or ‘anti-technology’, but were opposed to the use of technology in ways which did not serve the social needs of society.<sup>48</sup> Progress, and perceived opposition to it, was highly contentious and served as one of the key discourses through which techno-nationalism was debated in Britain.

The desire for Concorde and other similar projects was not limited to the state. In 1964, when Harold Wilson cancelled the TSR-2, P-1154, and HS-681 military aircraft projects in short succession, some members of the public were outraged, and believed the cancellations signalled a critical failure of the British aviation industry to keep up with the rest of the world. A letter to *The Yorkshire Post* feared Concorde would face the same fate, arguing that the application of ‘prestige project’ was ‘uneducated political parochialism’ and lamented the technological developments and economic potential which had been squandered by ill-informed politicians.<sup>49</sup> This was followed by the suggestion that British industry needed more, not fewer, innovative projects if it were to remain competitive.<sup>50</sup> Another letter to *The Times* suggested that cancellations of aircraft projects showed that Britain had ‘lost its self respect’ and asked: ‘Are we now so bankrupt of national awareness that we can contemplate abandoning a British aircraft in favour of yet another American?’<sup>51</sup>

British techno-nationalism was also reflected in popular culture. Public audiences flocked to air shows such as Farnborough – described as ‘Britain’s shop window for the world of aviation’ – which in 1966 featured mock-ups of Concorde and a display by the BAC 211, a prototype aircraft designed to test the shape of Concorde’s wing.<sup>52</sup> Children’s magazines

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<sup>47</sup> Derek J. Hardy, ‘Anti-Concord Project’, *The Times*, 19<sup>th</sup> July 1967, p.11; Derek J. Hardy, ‘Lessons from Five Years of Hovercraft Operations’, *Journal of Aircraft*, 1:4, pp.161-171 (p.161)

<sup>48</sup> For example, see: *Hansard’s Parliamentary Debates*, (3 February 1967, vol.740, cols. 1010-11) (London: Hansard). See also: Kelsey, *Fighting the Supersonic Deception*, pp.13-4 for Richard Wiggs’ views on technology and progress.

<sup>49</sup> L. Sefton, ‘Prestige Projects’ (Letter to the Editor), *The Yorkshire Post*, 3<sup>rd</sup> November 1964, p.6

<sup>50</sup> *Ibid*, p.6

<sup>51</sup> Keith Evans, ‘Aircraft Industry’ (Letter to the Editor), *The Times*, 18<sup>th</sup> January 1965, p.11

<sup>52</sup> British Movietonews, *Farnborough 66*, (1966)

<<https://www.iwm.org.uk/collections/item/object/1060022137>> [Accessed: 27<sup>th</sup> April 2025]

regularly celebrated British aviation developments - the children's magazine *Look and Learn* ran an article in March 1966 titled 'Flying into the Future', featuring a full-page colour illustration of Concorde wearing the colours of the British Overseas Airways Corporation.<sup>53</sup> By the latter half of the 1960s, Britons could build Concorde model kits, collect Concorde stamps and view Concorde photo slides.<sup>54</sup> Techno-nationalism, especially in relation to Concorde, was not just a political or economic phenomenon, but a social one. Many of the British public were enthusiastic towards the prospect of the British aviation industry helping to lead the world into the supersonic age, and the aircraft was considered popular with public audiences before it had even entered airline service.

This technological enthusiasm was not shared by all, and sonic boom testing led to a significant increase in criticism against Concorde. On the whole, the booms were unpopular – 53% of Bristolians believed the sonic booms would cause 'serious discomfort' to people, whilst 38% 'did not mind' the booms.<sup>55</sup> Richard Wiggs, convener of the Anti-Concorde Project, wrote that 'it proved virtually impossible for us to get any publicity – until the sonic boom tests began'.<sup>56</sup> By the end of the tests, Wiggs was reportedly receiving around 50 letters per day in support of the project, and by September the project had a thousand members.<sup>57</sup> North Bristol MP Robert Cooke also expressed concern that the sonic boom tests were turning the public against supersonic transport, questioning why sonic boom tests were being held in the first place despite the government's assurances that the airliner would not be allowed to fly supersonic over Britain.<sup>58</sup>

Although perhaps not familiar with the intricate politics of the race to build the supersonic transport, some amongst the public clearly recognised the tests as a manifestation of a wider British attempt to develop the latest aviation technology to project status as a world power. When asked why the tests were taking place, one person dismissively responded that 'they've got to fly faster and better aircraft to keep up with the

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<sup>53</sup> Wilfred Hardy, 'Flying Into The Future', *Look and Learn*, 26<sup>th</sup> March 1966, pp.22-3

<sup>54</sup> Lawrence Azerrad, *Supersonic: The Design and Lifestyle of Concorde*, (Prestel, 2018) p.13, p.21

<sup>55</sup> Fairhall, p.8

<sup>56</sup> Coventry, The Modern Records Centre (MRC), MSS/32/2/1, 'The Policy of the Anti-Concord Project summarised from previous statements' (c.1967)

<sup>57</sup> 'Anti-Boom Campaign Spreading', *The Guardian*, 24<sup>th</sup> July 1967, p.2; Richard Wiggs, 'Anti-Concord' (Letter to the Editor), *The Guardian*, 4<sup>th</sup> September 1967, p.6

<sup>58</sup> 'A Shock Move on Booms', *Bristol Evening Post*, 13<sup>th</sup> July 1967, p.1

supersonic Joneses, I suppose', whilst another responded 'something to do with America'.<sup>59</sup> Understandings of the techno-nationalist reasoning behind the tests led some to question whether British dominance in aviation would be worth it if sonic booms were to become a permanent feature of the British soundscape. Around halfway through the tests, an editorial in the *Bristol Evening Post* declared: 'There is a limit to the amount of noise people are prepared to stand in the cause of progress. That limit may be closer than the men in the ministries realise'.<sup>60</sup> The idea of being subjected to the sonic boom in return for economic and political aims was met with hostility. One letter to the same newspaper, for example, described the boom as '...one of the penalties we all have to pay in the mad race for superiority in the air, in space, in arms and speed...'.<sup>61</sup> Support for Britain's techno-nationalist aviation projects was clearly far from universal. The links between the sonic boom tests and British techno-nationalism led some to criticise the ideology, and question whether the proposed benefits of British technological dominance were worth the disturbance of the sonic boom.

Although it is difficult to know exactly what proportion of the public were supportive of British techno-nationalism without further survey data, this chapter demonstrates that many members of the British public were indeed proud of their nation's attempts to keep pace with developments in aviation, and fiercely defended projects from critics who were considered 'anti-progress'. On the other hand, although support for techno-nationalism was clearly common, it was far from unanimous. Sonic boom testing exposed a criticism which suggested that the demands being asked of the British public in the name of technology were too much to take. In the following chapter, these demands will be explored in further detail, through analysing how the British public responded to the sonic boom tests and what these responses show about the relationship between people and the state's deployment of high technology.

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<sup>59</sup> Fairhall, p.8

<sup>60</sup> 'Bangs', *Bristol Evening Post*, 15<sup>th</sup> July 1967, p.9

<sup>61</sup> W.E. Bulman, 'Mad Race' (Letter to the Editor), *Bristol Evening Post*, 24<sup>th</sup> July 1967, p.23

# Chapter Two

## Sensory Experiences of the Sonic Boom

This chapter will apply approaches from sensory history to show how the state's approaches to sound created a power imbalance between people and the state. Tom Kelsey's investigation into opposition to Concorde concludes that the opposition which Concorde faced was distinctly political and economic.<sup>62</sup> Whilst this argument holds true for the government and some elements of the press, the sound of Concorde was central to early public critiques of supersonic aviation. Kelsey's argument that the uniting factor across all opponents of supersonic aviation was a concern that the state held too much power over technology still holds when applied to public opposition, but in a slightly different sense.<sup>63</sup> By the late 1960s, noise pollution was considered an increasingly dangerous phenomenon and it was questioned whether the state should be allowed to develop an aircraft which would substantially add to noise in both urban and rural areas without consulting the public first. Concorde was considered an abuse of state power not only in the sense that it haemorrhaged funds which could have been spent on more useful public services, but also in the sense that it had the very real potential to disrupt the lives of people under its flight path.

To understand the significance of the auditory opposition to Concorde, it is first important to understand the social context of noise and noise abatement in modern British society. 'Noise' is usually defined as 'unwanted sound', and in the modern context is often associated with technology as a symptom of technological progress.<sup>64</sup> James Mansell argues that British people living between 1914 and 1945 considered themselves to be living in an 'age of noise' brought about by modern living.<sup>65</sup> In the post-war environment, noise abatement remained important issue to the public, with the founding of the Noise

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<sup>62</sup> Kelsey, *Fighting the Supersonic Deception*, p.30

<sup>63</sup> *Ibid*, p.30

<sup>64</sup> Karin Bijsterveld, *Mechanical Sound: Technology, Culture and Public Problems of Noise in the Twentieth Century*, (MIT Press, 2008) pp.2-3; James G. Mansell, *The Age of Noise in Britain: Hearing Modernity*, (University of Illinois Press, 2016) pp.1-2

<sup>65</sup> *Ibid*, p.1-2

Abatement Society (NAS) in 1959, which helped to pass the 1960 Noise Abatement Act and classify noise as a statutory nuisance.<sup>66</sup> The 1960s also saw the introduction of new noise to the British soundscape – jet airliners. The introduction of the turbojet not only increased noise for those living under the flight paths of airports, but also introduced a new type of sound – whilst propeller-driven airliners made a ‘grumbling’ sound, jet airliners created a ‘whining’ sound which resonated at frequencies to which the human ear was particularly sensitive.<sup>67</sup> This led to the establishment of a number of groups opposing aircraft noise, many of which allied with the Anti-Concorde project.<sup>68</sup> Supersonic aviation threatened once again to change the British soundscape, through both the sonic boom and substantially louder engines providing the power to break the sound barrier.

Many people who expressed concern about the social impact of the sonic boom were not opposed to the sonic boom in isolation, but on top of the existing noise of modern society. According to a report produced by MinTech following the exercise, 9.9% of complaints referred to the sonic boom being ‘an unacceptable addition to existing noise’, the third most common category of complaint following general dislike of sonic booms (48.7%) and the effects of sonic booms on structures (24.9%).<sup>69</sup> The sonic boom led the public to question whether the government’s rhetoric of technological progress was actually being used to the benefit of society - a typical example of this argument was sent to the *Bristol Evening Post*, where a writer asked: ‘Is it “progress” or “civilisation” for anyone to have to endure the ever-increasing noise misery?’.<sup>70</sup> Noise was considered an affront to the proposed aims of technological progress to improve human lives, and the increase of noise brought by Concorde led people to further criticism of such ideas in the public sphere.

Whilst the prevalence of noise in modern society was a key concern of many people, the character of the noise was equally important. Peter Bailey discusses how the character

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<sup>66</sup> The Noise Abatement Society, *About Us*, (n.d), <<https://noiseabatementociety.org/about-us/>> [Accessed 12 April 2025]. John Connell was a frequent critic of Concorde, and wrote several letters to newspapers criticising the noise produced by the aircraft.

<sup>67</sup> Erik Conway, ‘Quieting the Jet Engine’s Blast: On the Construction and Reduction of “Annoyance”, 1950-1980. Paper for Sound Effects: Technology, Practice, and Meaning in the Collection and Evaluation of Sound, *SHOT/45 Annual Meeting*, Atlanta, Georgia, October 16–19, cited in *Mechanical Sound*, pp.196-7

<sup>68</sup> Richard Wiggs, *Concorde: The Case Against Supersonic Transport*, (Ballantine/Friends of the Earth, 1971), Appendix Five: Anti-Sonic Bang Groups

<sup>69</sup> TNA, FV/2/557, Sonic Bangs (Draft Memorandum by the Minister of Technology), c.1968

<sup>70</sup> A. M. MacManus, ‘Progress’ (Letter to the Editor), *Bristol Evening Post*, 11<sup>th</sup> July 1967, p.3

of sound can invoke different emotions in the listener, and that such emotions are often highly subjective, noting that the sounds of war - often characterised by the explosions of bombs and artillery - holds the potential to terrify listeners.<sup>71</sup> For many people in Britain during the 1960s, this was not an unfamiliar sound – just over twenty years previously, the people of London and Bristol had been subjected to the explosions of bombs during the blitz, and for some, the sonic booms returned the sense of terror felt during the war. One person noted that upon hearing the sonic boom their 'nervous system forgot the date and thought "another V2"'.<sup>72</sup> One middle-aged man told an ITN reporter that the sound reminded him of the war, and when asked if he was startled, responded 'Yes, because one is always startled by a bomb dropping, and this is the effect it has'.<sup>73</sup> The likening of the sonic boom to warfare was strengthened by the fact that there was a slight, but possible, risk of damage to property or personal injury – MinTech paid out over £4000 (c. £56,000 in 2017) to claimants, including £300 (c.£4,225 in 2017) to three cases of personal injury.<sup>74</sup> James G. Mansell notes that adaptation to the noise of conflict during the Second World War was considered a hallmark of good wartime citizenship.<sup>75</sup> Some people applied this sentiment to the sonic boom - Daily Mail television critic Peter Black observed some people in television interviews treated the sonic boom 'as a challenge to their patriotism and powers of endurance and dogged cheerfulness', noting one man who said the sonic boom did not bother him because 'we had worse bangs during the war'.<sup>76</sup> For some, however, the idea that a person should get used to the sound of the sonic boom as they had got used to the sound of bombing in the war for the purposes of international prestige was particularly offensive. In the words of Margaret Hamilton, founder of the 'Bristol Anti-Boom Society', 'why should we have to suffer something like being continually under fire in wartime just so people like Frank Sinatra can get to New York a few hours faster'?<sup>77</sup>

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<sup>71</sup> Peter Bailey, *Breaking the Sound Barrier*, p.24-5

<sup>72</sup> MacManus, p.3

<sup>73</sup> ITN, *Sonic boom tests over Britain*, 21 July 1967 <[Sonic boom tests over Britain; Sonic boom tests over Britain;... Stock Footage Video - Getty Images](#)> [Accessed 01/04/2025]

<sup>74</sup> Wilson, p.65; 'Currency converter: 1270–2017', *The National Archives*, n.d., <<https://www.nationalarchives.gov.uk/currency-converter/#currency-result>> [Accessed 20<sup>th</sup> April 2025]

<sup>75</sup> Mansell, p.170

<sup>76</sup> Peter Black, 'How I learned to love noise while loathing the boom', *Daily Mail*, 19<sup>th</sup> July 1967, p.6

<sup>77</sup> *Tactics of the Ban the Boom and Benn Brigade*, p.5

Others were concerned about how the sonic boom tests highlighted the power imbalance between state and citizen in regard to noise legislation. In *The Soundscape*, R. Murray Schafer suggests that throughout human history, the ability to make noise has been a signifier of power, moving from nature, to the clergy, to industrialists and their technologies, writing that 'wherever noise is granted immunity from human intervention, there will be found a seat of power.'<sup>78</sup> This was precisely the concern of some critics of the sonic boom – the ability to wield such immense power in the form of noise was an alarming demonstration of power. On the 19<sup>th</sup> July 1967, Tony Benn personally arranged for an RAF Lightning to fly over the House of Commons whilst a debate was in progress to demonstrate the effects of a sonic boom to the Cabinet.<sup>79</sup> In Benn's words:

'It was very funny... At 12 o'clock, which we heard on Big Ben, there was a great sound like a clap of thunder. It did cause a shock, and was different from subsonic noise, but it wasn't as bad as one had expected. But Miss Nunn, who was in the Cabinet secretariat, hadn't known what was happening and went very pale.'<sup>80</sup>

The impact of the boom was not just limited to the Cabinet - the MinTech estimate for the total number of people who would hear a sonic boom over the London area was around eleven million people.<sup>81</sup> Although played off as a harmless prank by Benn, having the power to create a sound heard by such a large number of people set an alarming precedent for many members of the public, who were subject to strict restrictions on noise they could produce. To *The Times*, one person questioned why the state should have the power to disturb the public on such a scale, writing:

'My car may run more efficiently without a silencer and I should like to test the public reaction. If I do so I shall be prosecuted – and rightly. But not the Minister of Technology! Why not, and what is the difference?'<sup>82</sup>

In his analysis of the Oklahoma City tests, David Suisman argues that as the US government had never unleashed such a degree of 'sonic power' before, the sonic boom acted altered

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<sup>78</sup> *Ibid*, p.86-7

<sup>79</sup> Tony Benn, *Out of the Wilderness: Diaries, 1963-67*, (Hutchinson, 1987) pp.507-8

<sup>80</sup> *Ibid*, p.507-8

<sup>81</sup> TNA, FV/2/557, Sonic Bangs (Draft Memorandum by the Minister of Technology), c.1968

<sup>82</sup> D. Potter, 'Strange Distinction' (Letter to the Editor), *The Times*, 19<sup>th</sup> July 1967, p.11

the relationship between people and the state by altering the soundscape.<sup>83</sup> Within the responses of the British people in terms of power is this same process occurring in Britain – people generally paid little attention to the authority the state held over the sonic environment of Britain, but the 1967 sonic boom tests brought the imbalance of sonic power to the forefront.

Opposition to the sonic boom tests, then, was not solely about noise – it was also about the power which producing noise conveyed. Whilst many citizens were suffering from significant aircraft noise, the suggestion that a new aircraft should be developed which would introduce highly disruptive and damaging sounds into the already-sensitive climate of noise abatement for the purpose of prestige was met with hostility. Combined with the immense power the state held over private citizens when their interests conflicted with technological projects, which will be examined in the following chapter, it is clear that the public opposition to Concorde went far beyond the political and economic critiques levelled by some opponents and presented a significant concern that the state's enthusiasm for technology had the potential to damage the lives of its citizens.

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<sup>83</sup> Suisman, *The Oklahoma City Sonic Boom Experiment and the Politics of Supersonic Aviation*, p.170

# Chapter Three

## Sonic Booms and the Decline of Faith in Technology

By the end of the 1960s, historians have observed that attitudes to technology underwent a significant shift on both sides of the Atlantic. In the United States, this is often linked to wider scepticism towards the impact of technology on society and the environment.<sup>84</sup> David Suisman argues the American SST program played a role in this, with some seeing the protests against the SST as the beginning of the modern environmental movement.<sup>85</sup> Historical study of this movement away from technology in Britain is lacking, although R.J. Morris suggested that it was less environmental in character and more related to a growing idea that technology was creating more problems rather than solving them, suggesting the Ronan Point tower collapse and growing fears of nuclear war as examples.<sup>86</sup> This chapter seeks to add to the understanding of this shift in the mentality of the British public, arguing that the sonic boom tests created a distinct power imbalance between people and the state's technological projects, which contributed to the wider loss of faith in technology experienced at the end of the 1960s.

It is first important to consider the political environment which opposition to the sonic boom took place in. During the post-war era, whenever the interests of the public came into conflict with the interests of the state's use of technology, the state almost always won. This is perhaps best illustrated by comparison with nuclear power during the same period, a frequent cause of similar conflicts. Ian Welsh's history of the construction of nuclear power stations in the 1950s characterises the state's deployment of reactors as an unstoppable 'nuclear juggernaut', against which the public's interests were difficult to

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<sup>84</sup> W. Patrick McCray, *The Visioneers: How a Group of Elite Scientists Pursued Space Colonies, Nanotechnologies, and a Limitless Future*, (Princeton University Press, 2012) pp.347-8

<sup>85</sup> David Suisman, 'The American Environmental Movement's Lost Victory: The Fight against Sonic Booms', *The Public Historian*, 37:4 (2015) pp.111-131 (p.130-1), David Suisman, *The Oklahoma City Sonic Boom Experiment*, p.189-90

<sup>86</sup> Morris, p.44

defend.<sup>87</sup> By the early 1970s, the Central Electricity Generating Board (CEGB) had gained a reputation for being uncompromising with the public as they pushed through plans for nuclear power stations against the wishes of local people.<sup>88</sup> This attitude was bolstered by an increasing sense that technology was something which did not belong to the people. Jonathan Hogg notes that the 1957 Windscale fire deepened the power imbalance between the British public and the state, as members of the public realised they held little power against the government's high-technology projects.<sup>89</sup> Against the backdrop of Concorde's development, the public increasingly felt that their power to resist the government's technological projects was being eroded. Whilst Concorde was not a permanent and immovable structure such as a power station or electricity grid, the same conflict between state and citizen was replicated as the sonic boom threatened the amenity of people living under its flight path. The public applied the results of previous techno-political conflicts to Concorde, believing that the inevitable victory of the state was a foregone conclusion.

Combined with the powerful narratives of inevitable technological progress outlined in the first chapter of this dissertation, many felt that they were powerless to stop the advance of technology. Some believed that if they started to campaign early, they had a chance of preventing widespread sonic booms in Britain. In 1964, a writer to *The Guardian* complained of incessant aircraft noise in South London and lamented that whilst it was too late to solve the problems of aircraft noise around airports, protest against the sonic boom was a matter of urgency whilst SSTs were still in early development.<sup>90</sup> A few weeks later, to the same publication, another writer suggested that 'nothing short of frequent complaints from every member of the public will convince the promoters of the supersonic transport that there is any serious public objection to it'.<sup>91</sup> His letter ended on a far less hopeful note, suggesting it would be easier to campaign for sound insulation in buildings rather than 'stem the flood tide of progress'.<sup>92</sup> Even though Concorde would not start construction until the

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<sup>87</sup> Ian Welsh, *Mobilising Modernity*, (Routledge, 2000) p.67-94; See also: Christine Wall, "Nuclear Prospects': the siting and construction of Sizewell A power station 1957-1966', *Contemporary British History*, 33:2 (2019) pp.246-273

<sup>88</sup> Navickas, p.94, Herring, p.93

<sup>89</sup> Hogg, p.92

<sup>90</sup> P.A. Twist, 'Sonic Boom' (Letter to the Editor), *The Guardian*, 3 August 1964, p.6

<sup>91</sup> N.E. Fawcett, 'Sonic Booms' (Letter to the Editor), *The Guardian*, 19<sup>th</sup> August 1964, p.13

<sup>92</sup> *Ibid*

following year, the fact that some believed the development of supersonic transport was inevitable to the point where adapting the homes of the public seemed more feasible than the cancellation of the SST highlights that British aviation development, like nuclear power, was considered an unstoppable 'juggernaut' of progress against which the interests of the public held very little weight.

The fear that the government would allow unrestricted supersonic flight over Britain became very real once the public experienced sonic booms for themselves during the 1967 tests, and letters quickly appeared in newspapers calling on the public to act before it was too late. Many reflected a distinct sense of urgency, suggesting that if mass protest was not staged immediately, their silence would be assumed to mean ambivalence and the sonic booms would continue unopposed. One man wrote to the Bristol Evening Post urging readers to write 'straight away' to MinTech or the Prime Minister, suggesting:

'If we make the bold assumption that the government's plans will be affected in the slightest by public opinion, it is only by sending in as many complaints as possible that we in Bristol can avoid daily repetition in the not too distant future of such booms'.<sup>93</sup>

Although calling for protest, the lack of confidence shown is striking, reinforcing the conclusions drawn by protesters against nuclear power of an immensely powerful authoritarian government so dead-set on technological progress that the rights of its citizens were infringed in the process. Bristol also saw the establishment of a dedicated 'anti-Boom' society, of which some members suggested actions such as lying down on RAF runways or revving motorbikes and cars outside the houses of government ministers at night.<sup>94</sup> The sense of urgency highlights a significant distrust of the state – many felt that if they did not immediately protest, the state would ignore the discomfort many members of the public felt towards the sonic boom and it would become an unwelcome addition to the soundscape of modern life.

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<sup>93</sup> Nigel D. Aylett, 'The Boom – have your say NOW' (Letter to the Editor), *Bristol Evening Post*, 11<sup>th</sup> July 1967, p.3

<sup>94</sup> Anon., 'Tactics of the Ban the Boom and Benn Brigade', *Sunday Telegraph*, 23 July 1967, p.5;

The tenacity of some was matched by apathy in others, as most were sceptical that their opinion would hold any weight against the government's political desires for the project to succeed. When asked by ITN whether he thought sonic boom testing should continue, a man who was 'not particularly' disturbed by the sonic boom responded:

'Well, I suppose they've got to if they want to find the public reaction to them.

Though I don't see that that matters much, I imagine these aeroplanes will go on whether we object or not'.<sup>95</sup>

One woman told British Movietonews: 'We have no say in the matter, it's just done to us, isn't it?'<sup>96</sup> According to the 1967 Guardian opinion poll, 79% of those interviewed believed the government's sonic boom test programme could not be stopped.<sup>97</sup> The staggering number of letters and responses which indicate the belief that public opinion was irrelevant to the government's plans for technology further indicates the distinct sense of powerlessness British people felt when opposing new technologies. It appears that by 1967, technological development was becoming seen as something which happened to the British public, as opposed to something which the public felt they were able to play an active role in shaping.

Although Wiggs and the Anti-Concorde Project asserted that they were not 'anti-technology', others were directly hostile to technological development, asserting that the widespread disruption which would be caused by the sonic boom was not a marker of technological progress and instead demonstrated the idea that technology was being abused. This sentiment is typified by one writer to the *Bristol Evening Post*, who wrote: 'If this terrible experience is the price we have to pay for progress, let us do without progress'.<sup>98</sup> At the same time as the sonic boom tests, many scientists were concerned by a decline in enthusiasm for science in British students, who were increasingly opting to study the arts and social sciences instead.<sup>99</sup> Although the reasons cannot be linked directly to

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<sup>95</sup> ITN, *Sonic Boom Tests over Britain*

<sup>96</sup> British Movietonews, 'Ban the Boom?', 27<sup>th</sup> July 1967.

<<https://www.youtube.com/watch?v=l8HxVJ5JM38&list=PL9MgPIKiiLwyAfDsCJlnKIIDsn-n8wK5k>> [Accessed 20<sup>th</sup> April 2025]

<sup>97</sup> Fairhall, p.8

<sup>98</sup> D. Williams, 'Screaming' (Letter to the Editor), *The Bristol Evening Post*, 11<sup>th</sup> July 1967, p.8

<sup>99</sup> John Davy, 'Students swing from science to the arts', *The Guardian*, 4<sup>th</sup> June 1967, p.11

sonic boom testing in Britain, it is interesting that some academics suggested the reason was young people's concern that science was not being used for socially useful purposes was out of the control of engineers and scientists.<sup>100</sup> In a letter to *The Guardian* in late 1967, one writer suggested that scientists needed to become more aware of the social aspects of their work and how technology might be viewed as 'the gradual and inevitable dulling of the life [young people] see ahead'.<sup>101</sup> Alongside 'the ugliness of the concrete jungle' and 'the danger of the atomic bomb', the writer proposed 'the noise of the Concorde' as an example of misapplied technology contributing to this loss of faith. Wiggs also suggested that after Concorde's cancellation, the Anti-Concorde Project would turn to 'other examples of technology gone mad', clearly framing Concorde as one example of technology's wider misuse by the state.<sup>102</sup> Considering sonic boom tests in Britain as a contributing factor to a decline of faith in technology provides further evidence to suggest that distrust in technology was not a phenomenon restricted to the United States, and demonstrates that some saw Concorde as an example of a wider shift away from socially useful technologies towards a more dangerous and dystopian technological future.

The responses to the sonic boom tests discussed in this chapter reflect the deep power imbalance between people and the state in relation to technology. Those who were concerned about the sonic boom saw the state's techno-nationalism as an immensely powerful force which was difficult to stop once it had been set in motion. This created significant distrust in the population, who questioned how much control the people actually held against the wishes of the state. The strains on the relationship between people and the state caused by the 1967 sonic boom tests can be considered part of a wider public perception of the state as unapproachable and uncompromising when it came into conflict with the public on the grounds of technology, and also provides more evidence of a shift in opinion amongst the British public that technology was becoming increasingly dangerous to the modern world.

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<sup>100</sup> *Ibid*

<sup>101</sup> H.J.D. Tetley, 'Away from Science' (Letter to the Editor), *The Observer*, 24<sup>th</sup> September 1967, p.13

<sup>102</sup> MRC, MSS/32/2/1, *The Policy of the Anti-Concorde Project summarised from previous statements*, 1967

# Conclusion

The sonic boom proved a significant obstacle to Concorde's economic success. In 1970, the Labour government issued a white paper calling to ban commercial supersonic flight over Britain, in response to similar actions taken by countries who did not wish to be impacted by regular supersonic overflight, and Concorde never flew supersonic over Britain outside of test flights.<sup>103</sup> Whilst it is difficult to assess the impact of groups such as the Noise Abatement Society and Anti-Concorde Project on this decision, the 1967 sonic boom tests were a defining point for the opposition to Concorde due to the significant boost in publicity for anti-Concorde groups. Although not the only criticism people had of the project, the sonic boom provided an entry point for concerned members of the public.<sup>104</sup> Coupled with the 1974 oil crisis, Concorde was considered a white elephant and only fourteen were built, sold at a significant discount to the state-operated airlines of Britain and France.<sup>105</sup> The American SST which the British state had feared never entered production, and was cancelled by congress in part due to the public's environmental concerns in 1971.<sup>106</sup> By the early 1970s, it was becoming clear that supersonic transport was not the future - this instead lay in Concorde's subsonic contemporary, the Boeing 747 'Jumbo Jet', the most modern variants of which can carry up to four times as many passengers.<sup>107</sup> Britain and France, in their bold attempt to leapfrog American developments, had backed the wrong horse.

The responses to Exercise Summer Sky tell a social history of what David Edgerton and Tom Kelsey consider the final years of British techno-nationalism.<sup>108</sup> Whilst many members of the public were indeed deeply enthusiastic towards the prospect of a partially British aircraft defeating the might of the American aircraft industry, the tests exposed the lengths the British state was prepared to go to achieve this goal. Subjecting the public to

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<sup>103</sup> Wiggs, *The Case Against Supersonic Transport*, p.75

<sup>104</sup> David Suisman notes that the American opposition to the SST followed a similar trajectory in: David Suisman, *The American Environmental Movement's Lost Victory*, p.129

<sup>105</sup> Kelsey, p.1379-80

<sup>106</sup> *Ibid*, p.112

<sup>107</sup> Glancey, p.9-12

<sup>108</sup> Kelsey, *The Retreat from 'High Technology'*, p.1363; Edgerton, *The Rise and Fall of the British Nation*, p.327-338

sonic booms on a regular basis had no justification in peace time except the political and economic status granted by operating a supersonic airliner, leading people to question the techno-nationalist notions of prestige and progress underpinning the project. The British public who had put up with ever-increasing aircraft noise throughout the century found the prospect of regular sonic booms too much to bear, which contributed to part of a wider decline in faith in modern technology.

Despite its economic difficulties, Concorde became an icon of French and British engineering prestige (although rarely both at once, as Guillaume de Syon points out).<sup>109</sup> The constant sonic booms which many feared never came to pass – in fact, some living under its flight path fondly remember setting their watch or taking their coffee break upon hearing the muffled double-boom of the morning Concorde reflected from the atmosphere as it accelerated over the Irish Sea.<sup>110</sup> Concorde's rarity became its appeal, and seeing (or indeed, hearing) Concorde became an event.<sup>111</sup> If the sonic boom was heard at full strength night and day, the story of Concorde's retirement in 2003 may have ended somewhat differently. Instead of relief, it was met with a mixture of sadness and national pride. As the last commercial Concorde flight taxied in to the Heathrow Terminal, the pilot and co-pilot waved a pair of Union Flags from the open cockpit windows – amongst its supporters, the techno-nationalism from which Concorde was born was just as present at its retirement.<sup>112</sup> Richard Wiggs never saw the cancellation of Concorde, but his widow told their local paper, the *Biggleswade Chronicle*, that he 'would not have been surprised': 'All the predictions he made about selling to other airlines and the predictions against the sonic boom were vindicated'.<sup>113</sup>

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<sup>109</sup> de Syon, p.652

<sup>110</sup> House of Commons, Vol.946 Col.1775; 'Concorde Memory Map', *Aerospace Bristol*, n.d.  
<<https://concorde.communitymaps.org.uk/project/concorde-memory-map/contribution/33816?center=50.9705:-2.5983:8&tab=1>> [Accessed 25<sup>th</sup> April 2025]; de Syon, p.652

<sup>111</sup> de Syon, p.654

<sup>112</sup> 'How can they give this up, sobbed the man from Ohio as we came in to land', *The Telegraph*, 25<sup>th</sup> October 2003, p.3

<sup>113</sup> Mark Wood, 'No tears shed for Concorde landing', *The Biggleswade Chronicle*, 31<sup>st</sup> October 2003, p.19

## Afterword

On the 28<sup>th</sup> January 2025, 57 years after the RAF Lightning broke the sound barrier over Dorset, a prototype jet broke the sound barrier over the Mojave desert. This time, observers on the ground were met with silence.<sup>114</sup> This was the first supersonic test flight of the Boom XB-1, a testbed for the company's upcoming supersonic airliner, the Boom Overture. The aircraft, developed by private aerospace company Boom Supersonic, takes advantage of a complex aerodynamic phenomenon known as 'Mach cutoff', by which shockwaves are refracted in the atmosphere and do not reach the ground.<sup>115</sup> Environmental concerns still remain surrounding the aircraft's emissions - echoing Richard Wiggs' comments about Concorde half a decade before, environmental scientist Guy Gratton told *The Guardian* "They are doing very clever work... Whether it's a good idea that they do it – that's the tougher question."<sup>116</sup> The world is once again waiting to see if civil aviation will enter the supersonic age - and it is as controversial as ever.

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<sup>114</sup> 'Boomless Cruise', *Boom Supersonic*, n.d. <<https://boomsupersonic.com/boomless-cruise>> [Accessed 24 April 2025]

<sup>115</sup> *Ibid*

<sup>116</sup> Talib Visram, "As an environmental scientist, I'm horrified": Should supersonic passenger travel be making a comeback?, *The Guardian*, 12<sup>th</sup> April 2025. < <https://www.theguardian.com/science/2025/apr/12/as-an-environmental-scientist-im-horrified-should-supersonic-passenger-travel-be-making-a-comeback>> [Accessed 24<sup>th</sup> April 2025]

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