

*United States – Measures Affecting Trade in Large Civil Aircraft  
(Second Complaint)*

**(AB-2011-3/DS353)**

OPENING STATEMENT OF THE UNITED STATES  
AT THE SECOND SESSION OF THE ORAL HEARING

**October 11, 2011**

## OPENING STATEMENT OF THE UNITED STATES

1. Madame Chairman and members of the Division: Thank you for returning to address the issues in this dispute that we did not cover at the first session of the hearing. Our opening statement today will focus on the primary subject of this second hearing – the Panel’s findings that the alleged subsidies caused adverse effects in the form of displacement and impedance, price suppression, and lost sales of the Airbus A320, A330, Original A350, and A340. Our appellee submission addressed the Panel’s findings regarding attribution of patent rights and Annex V of the *Agreement on Subsidies and Countervailing Measures* (“SCM Agreement”) in great detail, so our presentation on those issues this morning will be restricted to a few additional observations.

### INTRODUCTION AND OVERVIEW

2. The SCM Agreement is clear that Members are free to maintain subsidies, including specific subsidies, as long as they are not prohibited and do not cause adverse effects. Whether the subsidies found to exist in this dispute caused adverse effects is, therefore, a question that would determine their consistency with the SCM Agreement. We are here today because the facts the Panel found to exist do not support its conclusion that the programs in question caused adverse effects. In particular, they do not indicate a genuine and substantial relationship of cause and effect between the subsidies and the forms of serious prejudice alleged by the EU. As discussed at our last meeting, the United States has appealed several of the Panel’s findings with respect to those alleged subsidies, but for purposes of our discussion of the Panel’s adverse effects analysis, we will, for the time being, assume that those findings are correct.

3. The main problems appear in the area of causation. The Appellate Body has in past reports been clear that a subsidy is inconsistent with Articles 5 and 6.3 of the SCM Agreement only if there is a genuine and substantial relationship of cause and effect between the subsidy and one of the conditions spelled out in the subparagraphs of Article 6.3. Panels have a degree of discretion in how they structure their analysis. But whatever framework they use, an inconsistency exists only if there is a causal link between the subsidy and the alleged market phenomena, and the Panel has ensured that it is not attributing the effects of other factors to the subsidies.

4. The Panel actually conducted three separate causation analyses, tracking its division of the subsidies into three groups based on their nature, structure, and operation, namely aeronautics R&D programs, tax subsidies, and subsidies alleged to increase Boeing’s nonoperating cash flow. That last group, subsidies alleged to increase nonoperating cash flow, is uncontroversial. The Panel found that those subsidies did not cause adverse effects by themselves, and the EU has not appealed that finding. The other causation analyses, however, consistently failed to meet the standard for a finding that subsidies caused adverse effects.

5. We will begin, as the Panel did, with the aeronautics R&D programs. The Panel found a causal link because technologies studied under the NASA programs were “part of a single process of iterative learning and advancement in pursuit of common technological goals”<sup>1</sup> that allowed Boeing to develop the technologies used to launch the 787 in 2004. It concluded on a counterfactual basis that the absence of such subsidies would have forced Boeing either to delay the launch of the 787 to some (unspecified) point after 2004 or to launch a 767 replacement in 2004, but with fewer advanced technologies than the 787 used. The Panel then concluded that in these scenarios, Airbus would not have lost sales that the 787 won because of its advanced technology, suffered displacement of exports from third country markets associated with those sales, or experienced price suppression because of the existence of a superior product.

6. The links in the causal chain are contrary to the Panel’s own factual findings. Therefore, the Panel’s reasoning does not support a genuine and substantial relationship of cause and effect that the Appellate Body has found necessary for a finding of inconsistency with Article 6.3. In particular, the Panel did not find that the NASA programs had “common technological goals.” Instead, it described in detail the different sets of technologies that they covered. The Panel decided to “focus” its analysis on composites research under the ACT, AST, and R&T Base programs, which it found to be “the most commercially and technologically significant programmes in this regard.”<sup>2</sup> However, it recognized that the other five programmes had other goals – such as supersonic flight, safety, air traffic management, or mitigation of environmental harm. These other programs represented the majority of NASA’s research and the majority of the subsidies the Panel found to exist, but the Panel did not consider whether these programs, or

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<sup>1</sup> Panel Report, para. 7.1750.

<sup>2</sup> Panel Report, para. 7.1703.

their goals, had any relationship to the technology used on the 787. In short, it impermissibly based conclusions about the totality of aeronautics R&D on the minority of programs that it found to have the greatest causal relationship.

7. The Panel’s factual findings also contradict its conclusion that NASA’s part in the “single process of iterative learning and advancement” represented a causal link. The evidence on which the Panel relied demonstrated that Boeing needed to perform substantial additional work to develop NASA research into a commercially usable technology. Extensive additional research performed by Boeing would necessarily dilute any causal effect of early work funded by NASA. The Panel also found that Boeing made extensive use of commercially available technologies developed by other companies – many of them foreign companies that did not participate in NASA projects. This would further attenuate any relationship between NASA research and the launch of the 787. The Panel’s finding that public dissemination of the results of Boeing’s research for NASA lessened the value of that work to Boeing would still further reduce any competitive advantage resulting from that research. Indeed, the Panel’s discussion indicated that NASA’s publicly disseminated research does not confer a benefit within the meaning of the SCM Agreement.

8. The Panel’s most telling finding is its recognition that the magnitude of the aeronautics R&D subsidies “may not appear significant when compared to Boeing’s consolidated revenues or R&D expenditures over 1989-2006.”<sup>3</sup> The Panel considered that the aeronautics R&D programs were “intended to multiply the benefit from a given expenditure,”<sup>4</sup> and on that basis rejected any evaluation of their “face amount.” But the Panel did not evaluate Boeing’s self-funded research efforts to see if they also had a multiplicative effect. To the extent the Panel made any findings on this issue, they indicated that *Boeing’s* self-funded R&D effort was not different in kind from the work NASA funded. Therefore, nothing prevented a comparison of R&D expenditures by NASA and Boeing itself. In light of the finding that the NASA programs might not “appear significant” in that regard, together with the other contradictions we have noted, it is impossible to sustain the conclusion that NASA’s part in the “iterative process of learning and advancement” that led to the launch of the 787 was a genuine and substantial

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<sup>3</sup> Panel Report, para. 7.1760.

<sup>4</sup> Panel Report, para. 7.1760.

relationship of cause and effect. These errors by themselves justify reversing the Panel’s conclusion.

9. But there is another serious problem, this one with the conclusion that in the absence of NASA funding, Boeing would not have funded the relevant research itself. This observation is directly contrary to several Panel findings. In particular, the findings that research under the NASA programs was directed to technologies of commercial interest to Boeing and had a large multiplier effect indicates that it was exactly the kind of research that a private company would want to conduct. The Panel sought to justify its conclusion that Boeing would not have done this by pointing to evidence that private sector companies were reluctant to fund “high risk aeronautical R&D” because of “the inability of individual firms to fully capture the benefits from the research efforts.”<sup>5</sup> But the Panel’s factual findings do not support this reasoning. For example, if research under NASA contracts was “principally for the benefit and use” of Boeing and NASA withheld portions of that research from public dissemination, as the Panel found,<sup>6</sup> it is difficult to see how Boeing would be unable “to fully capture the benefits” of that research. In other words, in a counterfactual scenario in which NASA did not fund research directed toward launch of the 787, the only plausible conclusion based on the Panel’s factual findings is that Boeing would have funded the research itself, and on the same schedule as the NASA-funded research. Thus, in the absence of the aeronautics R&D subsidies, the company could have, and would have, launched the 787 when and as it did. These errors also justify reversal of the Panel’s finding.

10. Therefore, the Panel’s own factual findings reveal two separate and independent errors in its analysis, each of which justifies reversal of the ultimate conclusion that the aeronautics R&D programs caused adverse effects. There are also a number of specific errors that justify reversing the Panel’s findings regarding lost sales, displacement of exports, and price suppression. Our submissions discuss these in detail, and we look forward to answering any questions you have over the coming days.

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<sup>5</sup> Panel Report, para. 7.1759, *citing* NASA R&T Base Budget Estimates, at FY 1997, SAT 4.5; at FY 1999 SAT 4.1.3 (Exhibit EC-398).

<sup>6</sup> Panel Report, para. 7.1771.

11. The Panel’s adverse effects findings with respect to FSC/ETI and the B&O tax adjustment also reflect serious errors, in the form of a host of necessary analytical steps that the Panel failed to take.

12. The list of things the Panel needed to do for a valid “but for” analysis, but did not do, is long:

- it did not examine the actual effects of the tax measures on Boeing’s commercial behavior;
- it did not examine how any change in Boeing’s behavior actually affected Airbus’s sales or prices;
- it did not evaluate the magnitude of the subsidies in terms of its relationship to the putative adverse effects;
- it did not address the negative correlation between the subsidies and their supposed adverse effects;
- it did not identify the lost sales that it found to exist;
- it did not identify the third country markets in which it found displacement or impedance; and
- it did not evaluate whether transaction-specific factors would have resulted in Boeing making allegedly lost sales even without the tax measures.

13. Instead, the Panel relied on simplistic economic theory to observe that a subsidy tied to a transaction would “enable” the seller to lower its prices. It then assumed that because Boeing was “able” to lower prices, it actually did so, and that Airbus consequently must have lost (unspecified) sales, resulting in displacement or impedance of Airbus aircraft from (unspecified) third country markets.

14. But the Panel’s observation about the likely effects of subsidies tied to transactions, however valid, does not operate in a vacuum. There are other factors that influence whether a seller actually lowers prices to the full extent it is “able.” Indeed, the Panel criticized the Cabral model for purporting to demonstrate “not just that it is ‘logically possible’ that Boeing used the ‘development subsidies’ to lower the prices of its LCA, but that Boeing *actually did* use the subsidies to lower the prices of its LCA,” when “the evidence as to pricing behaviour and market

share in the LCA industry” did not support such a conclusion.<sup>7</sup> Yet, in its analysis of the tax subsidies, the Panel itself failed to examine whether it was not only *theoretically* possible that Boeing used the tax subsidies to lower the prices of its aircraft, but that Boeing *actually did* use the subsidies to lower the prices of its aircraft.

15. Perhaps the best indicator of the number and significance of the holes in the Panel’s reasoning is that the EU devotes more than 100 pages of its appellee submission to an effort to show that the Panel’s five paragraphs of analysis were “thorough”.<sup>8</sup> This array of findings the Panel might have made (but did not) and evidence the Panel might have cited (but did not) only underscores the inadequacy of the Panel’s analysis. Moreover, the EU’s efforts, while voluminous, do nothing to remedy the numerous flaws in the Panel’s findings. With all of these holes in the Panel’s reasoning, its finding that the tax measures caused adverse effects to Airbus’s sales of the A320 and A340 is indefensible. Therefore, we respectfully request that the Appellate Body reverse these findings.

## DETAILED DISCUSSION

### **I. THE PANEL’S ADVERSE EFFECTS FINDING ON AERONAUTICS R&D PROGRAMS**

16. There is no question that the Panel devoted a great deal of space to its discussion of whether the NASA and DoD aeronautics R&D programs in question caused adverse effects to EU interests. But the Panel erred in failing to apply its own factual findings about what the programs studied and how they operated in its analysis of causation. As a result, it reached a legal conclusion – that there is a genuine and substantial relationship of cause and effect between the subsidies and certain adverse effects alleged by the EU – entirely at odds with those factual findings. The Panel’s analysis was accordingly inconsistent with Articles 5.2(c) and 6.3 of the SCM Agreement.

17. The EU in its Appellee Submission accuses the United States of disputing the Panel’s findings of fact, but that is not the case. In our appeals related to adverse effects, the United States challenges only one finding of fact – the Panel’s unsupported conclusion that NASA research projects were “largely responsible” for Boeing’s expertise as an integrator of aircraft.

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<sup>7</sup> See Panel Report, Appendix VII.F.2, para. 72.

<sup>8</sup> EU Appellee Submission, para. 571, heading.

Otherwise, we take the facts as laid out by the Panel in its subsidy and adverse effects analyses. The issue of causation is a legal issue involving the application of the causation standard in the SCM Agreement to the facts at issue. We have grounded our appeal in the Panel's failure to realize the implications of these facts for its legal analysis of causation. As a result, the Panel erred when it found that the set of facts before it was inconsistent with the U.S. obligation not to cause adverse effects to the interests of the EU.

18. The U.S. other appellant submission and appellee submission demonstrated three different ways in which the Panel's conclusion regarding the aeronautics R&D programs was inconsistent with the SCM Agreement.

- *First*, the Panel's findings on the nature and operation of the aeronautics R&D programs indicated that any link between the programs and Boeing's ability to launch the technologically advanced 787 in 2004 was attenuated to the point where it was no longer a genuine and substantial relationship of cause and effect.
- *Second*, if the Panel's findings on the importance of NASA research to Boeing's product development were correct, then in a counterfactual in which NASA did not fund the research, Boeing could have and would have done so itself. The Panel also erred by neglecting the key step of counterfactual analysis – comparison of the actual market situation with the likely counterfactual scenarios.
- *Third*, there were a number of flaws in the Panel's analysis of displacement and impedance, lost sales, and price suppression.

We will address each of these points in turn, briefly summarizing our grounds for appeal and then explaining why the arguments advanced in the EU's appellee submission are insufficient to justify the Panel's conclusions.

19. Before beginning this discussion, we would like to emphasize that while the United States has accepted the Panel's factual findings for purposes of this discussion, that does not mean we agree with all of them. Some we have challenged under Article 11 of the DSU. Just to be clear, for others, we consider that the Panel was mistaken, but these mistakes do not rise to the level that we would appeal them under Article 11 of the DSU. Our point is that, if these findings are taken as a given, they demonstrate that the Panel erred in finding that the subsidies in question caused adverse effects to EU interests.



**A. The facts as found by the Panel do not show a genuine and substantial relationship of cause and effect between the aeronautics R&D programs and the adverse effects.**

20. The Panel made a number of findings with regard to the aeronautics R&D programs that it did not factor properly into its causation analysis. All of these were findings that pointed to the tenuousness of any causal relationship between the aeronautics programs and the technologies used on the 787. Our other appellant submission addresses a number of these findings, and explains how they demonstrate that there was no genuine and substantial relationship of cause and effect between the subsidies found by the Panel and the purported adverse effects to the interests of the EU. The Appellate Body has found that such a link is necessary to reach an affirmative finding that subsidies cause adverse effects within the meaning of the SCM Agreement. It further explained in *EC – Large Civil Aircraft* that a “but for” analysis, such as the Panel conducted, meets this standard if it establishes that the subsidies are “both a necessary cause of the market phenomenon *and* a substantial cause.”<sup>9</sup>

21. Given the time available, we will focus today on three of the Panel’s findings. Before doing that, I would like to emphasize that we come to this point only if the Appellate Body has rejected our appeals of the Panel’s subsidy findings. Therefore, we assume for purposes of this portion of our appeal that the Panel’s subsidy findings, including those we have challenged under Article 11 of the DSU, are correct.

22. We will start with the Panel’s finding that the NASA aeronautics R&D subsidies:

are focused on particular types of technologies; namely, those that industry considers to be of the greatest potential commercial benefit. Indeed, the focus of the research under the aeronautics R&D programmes on areas of primary strategic importance to the U.S. civil aircraft industry is hardly surprising given that the definition of the scope and programme of research was arrived at in collaboration with industry.<sup>10</sup>

Thus, in the Panel’s view, the industry identified technology needs based on its strategic objectives, and told NASA what to fund. The Panel found that the technologies studied in these programs were not identical to those used on the 787. Instead:

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<sup>9</sup> *EC – Large Civil Aircraft (AB)*, para. 1233 (emphasis in original).

<sup>10</sup> Panel Report, para. 7.1745.

the technology concepts studied under the NASA R&D subsidies and the technologies applied to the 787 are essentially part of the same process in which solutions to technological problems are developed (through a collective exercise of progressive learning through trial and error involving largely the same teams of people over an extended period of time).<sup>11</sup>

This was the causal link that the Panel considered to exist between NASA research and technologies used to launch the 787 in 2004 – that NASA funded the study of concepts that were later developed into solutions to broad technological problems. Its primary example of this process was NASA’s early-stage work on composites that, in the Panel’s view, led to the markedly different technologies used on the 787.

23. The Panel treated this causal connection as applicable to all of the aeronautics R&D programs at issue, even those that it considered *less* “commercially and technologically significant” to the development of the 787.<sup>12</sup> The most obvious example is the HSR Program, which the Panel recognized as focused on supersonic flight, an area of “strategic importance” in the mid- and late-1990s that Boeing abandoned long before it launched the 787.<sup>13</sup> These findings should have signaled to the Panel that research into supersonic flight was not part of the progression from concept to finished technology that led to the 787. As the HSR Program represented nearly 40 percent of NASA R&D contracting with Boeing, these facts would clearly lessen any link between the sum total of the aeronautics R&D programs and the 787. And this is only one of several examples of research Boeing conducted under these programs that had less – in fact, substantially less – commercial and technological significance for the 787, a factor that the Panel failed to consider.<sup>14</sup>

24. The EU argues that the lack of a relationship between HSR Program research and the 787 technologies is irrelevant because the Panel “rejected the US focus on a 1:1 application on the 787 of technologies studied under the US aeronautics R&D subsidies.”<sup>15</sup> This is wrong on two

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<sup>11</sup> Panel Report, para. 7.1750, *quoted in* EU Appellee Submission, para. 369.

<sup>12</sup> Panel Report, para. 7.1702.

<sup>13</sup> Panel Report, para. 7.1005 and 7.1728-7.1730.

<sup>14</sup> US FWS, paras. 159-160; US RPQ 176, paras. 166-169; US RPQ 188, paras. 220-221; US RPQ 208(e), paras. 305-306; Exhibits &S-1272 and US-1304.

<sup>15</sup> EU Appellee Submission, para. 369.

levels. It was the EU that “focused” on the one-for-one use of NASA technologies on the 787.<sup>16</sup> The allegation that Boeing used NASA-funded technologies on its aircraft was initially the centerpiece of its technology causation theory. But the more important point is that the United States is not suggesting that a one-to-one relationship between NASA research and Boeing products is necessary to establish causation under Article 6.3 of the SCM Agreement. We are focusing instead on the Panel’s theory of causation – that technologies that appear “discrete and unrelated” may be linked if they are part of “a single process of iterative learning and advancement in pursuit of a common technological goal.”<sup>17</sup> The Panel’s finding that the HSR Program “focused” on supersonic flight places it outside the process of learning in support of goals that the Panel found relevant to the 787 – in particular the use of composites and more-electric architecture. The Panel recognized this fact when it found that some NASA programs (ACT, AST, and R&T Base) were more “commercially and technologically significant” than others (HSR, HPCC, Aviation Safety, QAT, and VSP).<sup>18</sup> It erred, however, when it failed to take those differences into account – in particular differences indicating little or no link with 787 technologies.

25. The EU also argues that the Panel framed its conclusion in terms of all of the R&D programs “taken together” and, therefore, must have incorporated any differences among them into its analysis.<sup>19</sup> This is incorrect. The Panel stated plainly that it would

focus primarily on the material pertaining to research . . . in the field of composites, and the composites technologies applied to the 787, particularly under the ACT, AST and R&T base programmes, which appear from the evidence to be the most commercially and technologically significant programmes in this regard.<sup>20</sup>

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<sup>16</sup> E.g., EC FWS, paras. 483 and 1352; EC FWS, Annex C, para. 7.

<sup>17</sup> Panel Report, para. 7.1750.

<sup>18</sup> Panel Report, para. 7.1704.

<sup>19</sup> EU Appellee Submission, paras. 361-362.

<sup>20</sup> Panel Report, para. 7.1702.

Although it recognized that the HSR Program was “focused” on supersonic flight,<sup>21</sup> the Panel never considered how this would affect its conclusion regarding the NASA programs “taken together.”

26. The second factual finding on which we would like to focus today is that:

it is reasonable to assume that at some point in time, the contribution of the NASA-funded research will diminish in relation to other, more recent or revolutionary technological developments that are attributable to other factors.<sup>22</sup>

In this finding, the Panel recognizes that the passage of time, or intervening technological developments, will lessen any relationship between a given research effort and a subsequent commercial technology. Based on this finding, the Panel went on to note the legal significance of this fact – that after some amount of time or further development

it will no longer be possible to characterize the NASA research conducted in the 1990s as having contributed in a genuine and substantial way to new technologies applied to future Boeing LCA.<sup>23</sup>

A comparison of the relative importance of research efforts to a final technology, both in temporal and technical proximity, is accordingly critical to a proper evaluation of whether any particular effort has a meaningful causal link to a technology. In this way, a panel may ensure that adverse technology effects are attributed only to research that is a genuine, or “necessary”, cause and that other intervening causes do not “substantially account for the market phenomenon.”<sup>24</sup> The EU does not object to the factual finding regarding the effects of the passage of time, or to the legal implications that the Panel drew from it.

27. The Panel’s factual findings, taken at face value, contradict its conclusion that a genuine and substantial causal link existed between the aeronautics R&D programs and the 787’s entry into the market. The Panel recognized that many factors – preceding, contemporaneous and subsequent to the NASA-funded research – were responsible for the technology used on the 787, in particular research conducted independently by Boeing or by its suppliers. It cited evidence

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<sup>21</sup> Panel Report, para. 7.1728.

<sup>22</sup> Panel Report, para. 7.1758.

<sup>23</sup> Panel Report, para. 7.1758.

<sup>24</sup> *EC – Large Civil Aircraft (AB)*, para. 1233.

that it takes a great deal of time and effort to mature technology beyond the point where NASA research stops.<sup>25</sup> These and the other factual findings discussed in our submission demonstrate the attenuation of the causal link to the point where it is no longer a genuine and substantial relationship of cause and effect.

28. Our analysis so far has taken the factual findings as a given. In addition, the Panel’s failure to follow the guidance of Article 11 of the DSU makes the disconnect between the facts and the Panel’s conclusion even more clear. The United States explained in its other appellant submission that there was no meaningful support for the Panel’s finding that “the ability to define and manage the complex interaction of design processes, organization and tools so as to enable the robust development and manufacturing of an aircraft . . . is a challenge that Boeing can meet thanks in large part to NASA and DOD funding and support.”<sup>26</sup> We observed that the Panel itself cited no evidence,<sup>27</sup> and the EU does not contest this point.

29. Instead, it tries to defend the Panel based on three “examples” of projects that allegedly “were precisely focused on making Boeing a better integrator.”<sup>28</sup> None of them support the Panel’s finding. One example, research for the Joint Strike Fighter and F-22 programs, was part of DoD research that the Panel found was not a subsidy<sup>29</sup> or did not cause adverse effects.<sup>30</sup> For another EU example, use of electric actuators on aircraft, the citations consist exclusively of assertions by an Airbus employee, unsupported by the evidence, that NASA research involved industrial integration capabilities.<sup>31</sup> The last example, the Integrated Wing Design project, is not even relevant to the Panel’s conclusion – the “integration” in question was of different elements of Boeing’s internal design process, and not of the contributions from multiple suppliers to manufacture of an aircraft.<sup>32</sup> Thus, the documents cited by the EU do not support the Panel’s

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<sup>25</sup> Panel Report, para. 7.1748.

<sup>26</sup> US Other Appellant Submission, para. 238.

<sup>27</sup> US Other Appellant Submission, paras. 246-247

<sup>28</sup> EU Appellee Submission, para. 397.

<sup>29</sup> Panel Report, para. 7.1171.

<sup>30</sup> Panel Report, para. 7.1701.

<sup>31</sup> EU Appellee Submission, para. 397, note 789, *citing* EU FWS, Annex C, para. 71 and Exhibit EC-15(BCI), pp. 105-106.

<sup>32</sup> Panel Report, para. 7.1717.

finding that NASA research was “in large part” responsible for Boeing’s ability to use third party supplier technologies on the 787.

30. The importance of comparing the contributions of different sources of technological development brings us to a third set of factual findings, related to the magnitude of the aeronautics R&D subsidies. The Panel started to make this comparison, noting that the aeronautics subsidies “perhaps may not appear significant when compared to Boeing’s consolidated revenues or R&D expenditures.”<sup>33</sup> This is an important point, as it indicates that the magnitude of the subsidies the Panel found to exist may be too small to have a genuine and substantial relationship of cause and effect with their supposed adverse effects. However, the Panel backed away from this comparison. The only reason it gave was that a numerical comparison was uninformative “{p}recisely because the nature of this kind of subsidy is that it is intended to multiply the benefit from a given expenditure, the Panel considers it unlikely that the effects of such expenditure (to the extent that it was successfully deployed) would be reducible to its face amount.”<sup>34</sup> But if Boeing helped plan the NASA research, and conducted its own complementary research, there is no basis to conclude that the resources devoted to each effort are incomparable. Rather, the opposite is true.

31. The Panel’s other factual findings lead to the same conclusion. In the Panel’s view, “NASA R&D subsidies the subject of our analysis are precisely focused on those areas which, from a commercial perspective, are considered to be the most crucial to the LCA industry.”<sup>35</sup> They “complemented Boeing’s internal product development efforts.”<sup>36</sup> While the ATCAS program studied a composite fuselage, Boeing itself was working on “other fuselage section, material and process standards.”<sup>37</sup> In short, in the Panel’s view, “the technology concepts studied under the NASA R&D subsidies and the technologies applied to the 787 are essentially

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<sup>33</sup> Panel Report, para. 7.1760.

<sup>34</sup> Panel Report, para. 7.1760.

<sup>35</sup> Panel Report, para. 7.1742.

<sup>36</sup> Panel Report, para. 7.1746.

<sup>37</sup> Panel Report, para. 7.1746.

part of the same process.”<sup>38</sup> Thus, if the Panel’s factual findings are correct, NASA-funded research was essentially comparable to Boeing’s self-funded research.

32. It is worth noting at this point that the DoD subsidies that the Panel found to be causing adverse effects do not affect the analysis. The United States has demonstrated that the magnitude of the R&D expenditure covered by the Panel’s findings was less than \$100 million.<sup>39</sup> The EU has not objected to this valuation. It is also noteworthy that the Panel report contains no discussion of the effects of cooperative agreements, technology investment agreements, and other transactions funded through DoD’s ManTech and DUS&T programs.

33. The EU tries to defend the Panel’s rejection of a consideration of the magnitude of the subsidy by arguing that the absolute amount of the Panel’s subsidies is not relevant, and that their effects on risk reduction and technology development are what matter. There is some validity to the view that the absolute value does not matter. As the Panel found, it is the *relative* contribution that matters. And a *relatively* small subsidy is unlikely to reduce risk or develop technology in any meaningful way.

34. The EU also argues that the magnitude of the subsidies is not terribly important in light of the Appellate Body’s finding in *US – Upland Cotton* that “a precise, definitive quantification of the subsidy is not required.”<sup>40</sup> This argument confuses two different concepts that the Appellate Body carefully distinguished. As we have all repeatedly noted, the Appellate Body found that precise quantification is unnecessary under Section III of the SCM Agreement. However, it also found that “the magnitude of the subsidy is an important factor” in the analysis under Article 6.3(c).<sup>41</sup> The Appellate Body explained that

A large subsidy that is closely linked to prices of the relevant product is likely to have a greater impact on prices than a small subsidy that is less closely linked to prices. All other things being equal, the smaller the subsidy for a given product, the smaller the degree to which it will affect the costs or revenue of the recipient, and the smaller its likely impact on the prices charged by the recipient for the

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<sup>38</sup> Panel Report, para. 7.1750.

<sup>39</sup> US Other Appellant Submission, para. 252, note 400.

<sup>40</sup> EU Appellee Submission, para. 393, *quoting US – Upland Cotton (AB)*, para. 467.

<sup>41</sup> *US – Upland Cotton (AB)*, para. 461.

product. However, the size of a subsidy is only one of the factors that may be relevant to the determination of the effects of a challenged subsidy. A panel needs to assess the effect of the subsidy taking into account all relevant factors.<sup>42</sup>

The same logic applies in this situation. The causation analysis needs to take into account “all relevant factors,” but the Panel dismissed one of them – the magnitude – for reasons that do not withstand scrutiny. Therefore, its analysis was inconsistent with Articles 5 and 6.3 of the SCM Agreement.

35. In closing, with the exception of the Panel’s unsupported finding regarding the source of Boeing’s expertise in technology integration, the United States is not challenging the Panel’s factual findings. Our point is rather that the factual findings that the Panel made do not support – indeed are inconsistent with -- its legal conclusion that the subsidies caused adverse effects to the interests of the EU. Therefore, the Appellate Body should reverse that legal finding.

**B. The facts as found by the Panel show that, if the NASA R&D programs were unavailable, Boeing had the ability and incentive to perform the research itself and on the same schedule.**

36. The U.S. other appellant submission demonstrated that the Panel erred in another way – by failing to conduct a proper counterfactual analysis. Such an analysis would first require a study of how the market and market operators worked in actuality, and then an examination of the extent to which the outcome would have changed if one of the actors had received the subsidies in question. In this case, the answer is clear. The Panel found that Boeing needed to develop new and innovative products to compete with Airbus, knew what research needed to be done, and was actually performing research in those areas in parallel with work funded by NASA. The Panel’s finding that research spending has a multiplicative effect underscores Boeing’s incentives to perform the research. Moreover, the amounts involved were relatively small compared to what Boeing was funding on its own.<sup>43</sup> If NASA had failed to fund the research in question, any rational economic actor in Boeing’s position would have performed the research itself. Therefore, the facts as found by the Panel do not support its finding that “absent the aeronautics R&D subsidies, Boeing would not have been able to launch an aircraft

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<sup>42</sup> *US – Upland Cotton (AB)*, para. 461.

<sup>43</sup> Panel Report, para. 7.1760.



incorporating all of the technologies that are incorporated in the 787 in 2004, with promised deliveries commencing in 2008.”<sup>44</sup>

37. The arguments advanced by the EU do not change this conclusion. The EU first contends that “{t}he Panel found that fundamental research, like the one supported by NASA and DOD is a high-risk investment that private firms are reluctant to incur.”<sup>45</sup> In fact, the Panel found the opposite: “The Panel emphasizes that because the NASA R&D programmes at issue are clearly linked to industrial and commercial objectives, the R&D programmes at issue do not involve ‘fundamental research’ . . . under the provisions of Article 8 of the SCM Agreement.”<sup>46</sup> This was not an isolated statement. The Panel also stated that “{w}e do not consider that the NASA R&D subsidies were directed to general aeronautics research or to research of incidental importance to the development of a product.”<sup>47</sup> It uniformly characterized the R&D subsidies it found to exist as “precisely focused on those areas which, from a commercial perspective are considered to be the most crucial to the LCA industry” – the opposite of fundamental research.<sup>48</sup>

38. The EU next argues that the U.S. counterfactual is invalid because “the United States points to no evidence substantiating” that “Boeing knew what research needed to be done.”<sup>49</sup> This is a surprising assertion, because the EU itself repeatedly made arguments to the effect that “Boeing has had considerable influence on the planning and evaluation of NASA’s aeronautics R&D programmes, explaining in part how Boeing has been able to tailor the use of government funds for its own needs.”<sup>50</sup> The Panel itself found that “R&D was often undertaken at the behest of and in close collaboration with the U.S. industry.”<sup>51</sup>

39. The EU also argues that, regardless of whether Boeing knew what research to perform, “even though the investment has a high potential return, the low likelihood of success means

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<sup>44</sup> Panel Report, para. 7.1775.

<sup>45</sup> EU Appellee Submission, para. 416.

<sup>46</sup> Panel Report, para. 7.1709, note 3598.

<sup>47</sup> Panel Report, para. 7.1742.

<sup>48</sup> Panel Report, para. 7.1742.

<sup>49</sup> EU Appellee Submission, para. 419.

<sup>50</sup> EC FWS, paara. 495; *e.g.*, EC FWS, paras. 485, 489, and 496-498.

<sup>51</sup> Panel Report, para. 7.1709.

there is a low likelihood of realising that return, discouraging commercial investors from engaging extensively in that sort of research.”<sup>52</sup> But the only support the EU advances for this proposition is its assertion that the aeronautics R&D subsidies to Boeing funded “fundamental” or “basic” research.<sup>53</sup> As the Panel rejected that view, it cannot support the Panel’s causation analysis.

40. The EU also points to the Panel’s statements that there are “large disincentives for private sector investment in long term, high risk aeronautical R&T.”<sup>54</sup> But these merely highlight another flaw in the Panel’s reasoning. It ascribed the “disincentive” to “the inability of individual firms to fully capture the benefits from the research efforts.”<sup>55</sup> It is difficult to square this statement with the Panel’s findings that research under the NASA R&D contracts was “principally for the benefit and use of Boeing” and the Panel’s skepticism that “research accelerating the development of key, high payoff technologies” was “publicly disseminated and equally available to Airbus.”<sup>56</sup> In other words, the Panel considered that any research leading to significant commercial technologies was primarily of benefit to Boeing, and would not accrue to others through dissemination – exactly the type of research whose benefits Boeing *could* “fully capture”. Thus, the “disincentives” appear to relate to the kind of research that the Panel found was *not* conducted with the aeronautics R&D subsidies – fundamental or basic research.

41. It is also worth noting in this regard that the Panel cites to NASA documents describing the disincentives as arising from “the public-good character of much of the research (safety, environment, certification, national security).”<sup>57</sup> In these cases, the disincentives are unrelated to technologies on the pathway to those used on the 787. Therefore, they are not relevant to an assessment whether absent the subsidies Boeing could have or would have brought the 787 to market when and as it did.

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<sup>52</sup> EU Appellee Submission, para. 420.

<sup>53</sup> EU Appellee Submission, paras. 419 and 421.

<sup>54</sup> EU Appellee Submission, para. 424, *citing* Panel Report, paras. 7.1747 and 7.1759.

<sup>55</sup> Panel Report, para. 7.1759.

<sup>56</sup> Panel Report, para. 7.1771.

<sup>57</sup> Panel Report, para. 7.1747, *citing* NASA R&T Base Budget Estimates, FY 1997, SAT4.5 and FY 1999, SAT 4.1.3 (Exhibit EC-398, pp. 131/270 and 150/270).

42. The EU also notes the U.S. observation that distance between NASA research and a commercially applicable technology attenuates the causal relationship. It posits that “it is precisely this distance that made the research too costly and risky for Boeing to invest in, and that made the NASA and DOD aeronautics subsidies more valuable.”<sup>58</sup> The EU misunderstands the point the United States was making – that the Panel failed to recognize that NASA research was *so far* removed from technologies used on the 787, and other factors played such a greater role, that no genuine and substantial relationship of cause and effect existed. Thus, in the counterfactual situation that NASA and DoD did not provide the aeronautics R&D subsidies, there would be no change in Boeing’s ability to launch the 787 in 2004 for scheduled delivery in 2008. If, however, the research was a critical link in the development of critical technologies, as the EU asserts, the huge benefit and relatively low cost of the research would motivate Boeing to conduct the research itself.

43. In sum, if the Appellate Body takes the Panel’s factual findings as correct, as it should in the absence of challenge by the participants, they point to only one plausible conclusion – that in the absence of the subsidies found by the Panel, Boeing could have, and would have, funded the research itself. The EU’s efforts to rebut this conclusion all rely on assertions contrary to the facts found by the Panel and, therefore, cannot be used to support the Panel findings at issue.

44. The Panel’s counterfactual analysis fails in another, independent way. Even, assuming *arguendo* that it was correct in finding that in the absence of subsidies, Boeing would have developed the 787 later, or launched a less advanced plane in 2004, the Panel failed to take the critical step of comparing the likely counterfactual scenarios with the actual market situation so as to isolate and identify the effects of the subsidies.<sup>59</sup> In *EC – Large Civil Aircraft*, the Appellate Body clarified that this analysis requires some sort of modeling exercise.<sup>60</sup> The Panel provided none. It identified two scenarios that it considered “likely”, but stopped before comparing Airbus’s sales, market share, and prices in the scenarios with the actual situation to see if there was any meaningful difference. For example, in examining the EU price suppression claim, the Panel considered only the effects of the 787’s entry into the market. It never

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<sup>58</sup> EU Appellee Submission, para. 426.

<sup>59</sup> *EC – Large Civil Aircraft (AB)*, para. 1110.

<sup>60</sup> *EC – Large Civil Aircraft (AB)*, para. 1110.

considered *when* the 787 would have been launched, and whether customers seeking its technological advances might have postponed orders rather than buy Airbus aircraft they considered inferior. The Panel also failed to address whether, under the other scenario, a less advanced 767 replacement launched in 2004 might have captured the same sales that the real-life 787 did. Thus, the central question of the counterfactual remains unanswered, meaning that the Panel's causation finding should be reversed.

**C. The Panel erred repeatedly in its analysis of the effect of the aeronautics research programs on Airbus.**

45. Our discussion so far has dealt with errors in the first stage of the Panel's adverse effects analysis, which examined whether the subsidies found by the Panel altered Boeing's commercial behavior. We believe that the errors we have discussed today and in our submissions justify reversing the Panel's conclusions regarding the existence of adverse effects. In that case, it would be unnecessary to review the second stage of the Panel's adverse effects analysis.

46. However, if the Appellate Body upholds the Panel's legal conclusions in the first stage of its analysis, it should reverse the findings in the second stage that these resulted in adverse effects on Airbus within the meaning of Article 6.3 of the SCM Agreement. For the most part, our appeal in this area addresses the details of particular transactions covered by EU lost sales or displacement claims, and much of that information is HSBI. Rather than attempt to discuss these issues at length in this statement, we refer the Appellate Body to our written submissions.

**II. THE PANEL'S ADVERSE EFFECTS FINDING ON FSC/ETI AND THE B&O TAX ADJUSTMENT**

47. The U.S. other appellant submission describes the numerous impermissible shortcuts that the Panel took in its analysis of the tax subsidies allegedly conferred on Boeing, which resulted in the incorrect conclusion that there existed a genuine and substantial relationship of cause and effect between the subsidies and the adverse effects alleged by the EU.

48. It is perhaps telling that, in response to the U.S. appeal, the EU spends 258 paragraphs covering 100 pages of its other appellee submission defending the Panel's findings,<sup>61</sup> while the

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<sup>61</sup> EU Other Appellee Submission, paras. 481-738.

Panel’s discussion itself consists of a mere 26 paragraphs that take up fewer than 10 pages of the Panel Report,<sup>62</sup> of which perhaps 5 paragraphs actually set forth the Panel’s analysis of serious prejudice.<sup>63</sup> The EU has gone on at great length to elaborate on the Panel’s examination, but the EU cannot substitute its arguments on appeal for the Panel’s own analysis, which is sorely lacking or, in some respects, entirely absent.

49. The Panel failed to seriously address what should have been the core of its analysis – an assessment of whether the market situation in the absence of the tax subsidies would have been materially different from the market situation with the subsidies. As the Appellate Body has found, “counterfactual analysis is an inescapable part of analyzing the effect of a subsidy under Article 6.3(c) of the *SCM Agreement*.”<sup>64</sup> In *EC – Large Civil Aircraft*, the Appellate Body described the counterfactual analysis that panels are required to undertake when examining serious prejudice:

The use of a counterfactual analysis provides an adjudicator with a useful analytical framework to isolate and properly identify the effects of the challenged subsidies. In general terms, the counterfactual analysis entails comparing the actual market situation that is before the adjudicator with the market situation that would have existed in the absence of the challenged subsidies. *This requires the adjudicator to undertake a modelling exercise as to what the market would look like in the absence of the subsidies. Such an exercise is a necessary part of the counterfactual approach.*<sup>65</sup>

50. While panels have a “margin of discretion in conducting the counterfactual analysis,”<sup>66</sup> that discretion is not unbounded. Panels must actually make findings concerning what the market situation would be in the absence of the challenged subsidies, based on record evidence, and then compare the actual market situation to that counterfactual market situation. The Panel here indicated that it intended first to examine the effects of the subsidies on Boeing’s commercial behavior (*i.e.*, Boeing’s prices and product offerings) and then to examine the effects of the subsidies, through their effects on Boeing’s commercial behavior, on Airbus’ prices and

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<sup>62</sup> Panel Report, paras. 7.1798-1823.

<sup>63</sup> Panel Report, paras. 7.1807, 7.1817-1819, and 7.1822.

<sup>64</sup> *US – Upland Cotton (21.5) (AB)*, para. 351.

<sup>65</sup> *EC – Large Civil Aircraft (AB)*, para. 1110 (emphasis added).

<sup>66</sup> *EC – Large Civil Aircraft (AB)*, para. 1110.

sales in the specific product markets.<sup>67</sup> However, the Panel failed actually to do this in its examination of the tax subsidies. The Panel simply did not make the necessary findings or undertake the required analysis.

51. On a basic level, the Panel failed to examine or answer the relevant questions: But for the tax subsidies, would Boeing necessarily have charged higher prices for its LCA, and, if so, how much higher would Boeing's prices have been?<sup>68</sup> Without knowing the answer to these questions, it is not possible to reach, much less answer, the next question in the analysis: in a counterfactual scenario in which the tax subsidies were not provided to Boeing, would Airbus have won more sales, had a higher market share, or received higher prices?

52. Instead of asking and answering these questions, the Panel focused solely on basic economic theory and anecdotal evidence. First, the Panel noted the Parties' agreement with the unobjectionable, theoretical economic proposition that subsidies tied to sales have an impact on those sales, and that such subsidies "enable" the subsidy recipient to lower the price of the sales.<sup>69</sup> The Panel further noted statements and evidence suggesting that the FSC/ETI subsidy was beneficial to Boeing – another uncontroversial proposition – and that in one instance in 1996 an Airbus negotiator was asked to reduce Airbus' offering price in an LCA sales campaign by the amount of the FSC/ETI subsidy that Boeing received. From this, the Panel concluded that there can be "no doubt that the availability of the FSC/ETI subsidies, in combination with the B&O tax subsidies, enabled Boeing to lower its prices beyond the level that would otherwise have been economically justifiable . . . ." <sup>70</sup> That is the extent of the Panel's analysis of the effect of the tax subsidies on Boeing's prices. The EU characterizes this analysis as "comprehensive."<sup>71</sup>

53. Notably, the Panel found that the tax subsidies "enabled" Boeing to lower its prices. The Panel did not find, however, that, but for the tax subsidies, Boeing necessarily would have

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<sup>67</sup> Panel Report, para. 7.1659

<sup>68</sup> See, e.g., *US – Upland Cotton (21.5) (AB)*, para. 370.

<sup>69</sup> Panel Report, paras. 7.1806-1807.

<sup>70</sup> Panel Report, para. 7.1818.

<sup>71</sup> See EU Other Appellant Submission, paras. 530-538.

charged higher prices. Indeed, the Panel rejected the EU’s attempts to show that, in the absence of the full panoply of alleged subsidies, Boeing would have been forced to raise its prices or go out of business.<sup>72</sup> Further, the United States submitted un rebutted evidence and argumentation demonstrating that Boeing’s pricing during the 2004-2006 reference period was profit maximizing.<sup>73</sup> This should have led the Panel to ask how, if Boeing had all the means necessary to price as it did, and if Boeing’s 2004-2006 pricing led to a sharp upturn in profits, the absence of the tax subsidies would have caused Boeing’s pricing to be any different. The Panel simply did not ask or answer that question.

54. The EU responds to this U.S. argument with a rather extensive discussion that attempts to rebut points that the United States has not made using facts that the Panel did not find and economic theory that is unsound.<sup>74</sup> In the interest of time, we will not catalogue the errors in the EU’s discussion this morning. We would be pleased, however, to address the EU’s assertions and arguments in response to any questions the Appellate Body might pose during the course of the hearing.

55. The Panel also did not answer the question: what was the magnitude of the tax subsidies, or, by how much, if at all, would Boeing’s prices have increased absent the tax subsidies? The Panel’s consideration of magnitude consisted of a summary of the positions of Parties on the measurement of the price effect of the FSC/ETI subsidies, and a bare assertion that the Panel “{did} not consider that either measure is particularly informative or illustrative of the capacity for the FSC/ETI subsidies to have affected Boeing’s prices, and by extension, Airbus’ prices and sales.”<sup>75</sup> The Panel presented no explanation for this view, and simply moved on to a discussion of the nature of the FSC/ETI subsidy and anecdotal evidence that suggested that the subsidy was of benefit to Boeing.

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<sup>72</sup> Panel Report, para. 7.1831.

<sup>73</sup> U.S. Comments on EC RPQ 370, para. 222 (*citing* EC RPQ 378, para. 411-413); *see also* U.S. Other Appellant Submission, paras. 108-109 (the EU has referenced these paragraphs as 321a and 321b; the United States regrets the error in paragraph numbering).

<sup>74</sup> *See* EU Other Appellee Submission, paras. 543-561.

<sup>75</sup> Panel Report, para. 7.1816.

56. The Panel’s passing reference to the magnitude of the subsidy is inconsistent with the Appellate Body’s finding in *US – Upland Cotton* that the magnitude of the subsidy is an “important factor” in the serious prejudice analysis, and its guidance that “[a] panel needs to assess the effect of the subsidy *taking into account all relevant factors*.”<sup>76</sup> Merely mentioning a factor is not the same as taking that factor into account.

57. It is no excuse that the Panel may have had “difficulty . . . calculating with mathematical certitude the precise degree to which Boeing’s pricing of the 737NG and 777 families of aircraft was affected by the FSC/ETI subsidies and B&O tax subsidies.”<sup>77</sup> Mathematical certitude will often be elusive in a serious prejudice analysis, and the Appellate Body has indicated that mathematical certitude is not necessary in order to determine, for example, that “[a] large subsidy that is closely linked to prices of the relevant product is likely to have a greater impact on prices than a small subsidy that is less closely linked to prices.”<sup>78</sup> The Panel did not even attempt such an analysis.

58. This failure cannot be remedied by the EU’s effort to re-label the Panel’s magnitude discussion as a “qualitative” – rather than quantitative – “analysis” that “tak{es} into close consideration the context provided by other relevant factors, namely the nature and duration of the subsidies.”<sup>79</sup> One could know much about the nature and duration of a subsidy and yet still not know whether the subsidy was provided in sufficiently large amounts to have the alleged adverse effects. That is why the Appellate Body has highlighted the importance of the magnitude inquiry, and why the Panel’s adverse effects findings, in the absence of any magnitude analysis, cannot stand.

59. The Panel similarly did not even attempt to analyze whether any correlation existed between the amount of the tax subsidies and the adverse effects they are alleged to have caused. The EU suggests that various statements made by the Panel, when cobbled together, indicate that the Panel did assess questions of correlation, although the EU then argues that the Panel was not

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<sup>76</sup> *US – Upland Cotton (AB)*, para. 461.

<sup>77</sup> Panel Report, para. 7.1821.

<sup>78</sup> *US – Upland Cotton (AB)*, para. 461.

<sup>79</sup> EU Other Appellee Submission, para. 584.



required to establish such a correlation anyway.<sup>80</sup> The Appellate Body, however, has found that correlation is another “important factor” in the analysis of serious prejudice.<sup>81</sup> And, once again, it is necessary to take into account all relevant factors.<sup>82</sup>

60. The EU argues that the Panel “objectively assessed questions of correlation”<sup>83</sup> when it asserted that, because the FSC/ETI program was in operation prior to 2000, it was not possible “to ascertain the effects of the subsidies from direct observation of market share and pricing trend data over the 2000 – 2006 period.”<sup>84</sup> However, the Panel’s statement is incorrect. An informative correlation analysis does not require data from a period when a subsidy was not provided. Rather, if FSC/ETI gave Boeing a “pervasive and consistent pricing advantage,” as the Panel believed,<sup>85</sup> then one would expect this view to be confirmed by comparing trends in the levels of FSC/ETI benefits to Boeing with Boeing’s market share. (If that were not so, then any pricing advantage conferred by the tax subsidies hardly could be called “pervasive.”)

61. As explained in the U.S. other appellant submission, an inverse correlation existed (and was observable) between the amounts of the tax subsidies, on the one hand, and Boeing’s pricing and market share on the other hand, when the period 2001-2003 is compared with the period 2004-2006.<sup>86</sup> The Panel simply did not address this inverse correlation or explain the relevance or irrelevance of this “important factor” in the serious prejudice analysis.

62. The Panel likewise did not explain how it “ensure{d} that the effects of other factors on prices are not improperly attributed to the challenged subsidies,” which the Appellate Body has explained is another “necessary” part of the serious prejudice analysis.<sup>87</sup> The EU correctly points to the Panel’s statement that it *intended* to conduct a non-attribution analysis,<sup>88</sup> but the

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<sup>80</sup> EU Other Appellee Submission, paras. 588-593.

<sup>81</sup> *US – Upland Cotton (AB)*, para. 451.

<sup>82</sup> *See US – Upland Cotton (AB)*, para. 461.

<sup>83</sup> EU Other Appellee Submission, para. 590.

<sup>84</sup> Panel Report, para. 7.1819.

<sup>85</sup> Panel Report, para. 7.1819.

<sup>86</sup> *See* U.S. Other Appellant Submission, para. 330.

<sup>87</sup> *US – Upland Cotton (AB)*, para. 437.

<sup>88</sup> EU Other Appellee Submission, paras. 600-601.

only evidence that the Panel actually may have done so is a single sentence that refers generally to U.S. arguments that the Panel asserted did not “reverse or attenuate” what the Panel had already found with respect to the effect of the FSC/ETI subsidies on Boeing’s pricing.<sup>89</sup> In light of the fact that certain non-subsidy factors were specific to individual sales campaigns – indeed, the Panel examined non-subsidy factors for individual sales campaigns in its analysis of the aeronautics R&D programs – the Panel’s broad, passing reference to non-subsidy factors is insufficient to “ensure” that the effects of other factors on prices were not improperly attributed to the tax subsidies. The EU’s effort to elaborate the Panel’s “key basis for rejecting the US non-attribution arguments”<sup>90</sup> cannot substitute for the Panel actually analyzing non-subsidy factors and explaining the results of its analysis.

63. Ultimately, the Panel failed to analyze factors that the Appellate Body has identified as “important” and “necessary” to take into account, and instead accorded supreme relevance to a single factor, the legal status of FSC/ETI as an export subsidy prohibited under Part II of the SCM Agreement. While the United States does not disagree with the Panel and the EU that the nature of a subsidy is a relevant factor to be taken into account in the serious prejudice analysis, it is also the case that the legal status of a measure under Part II of the SCM Agreement is not a basis for pre-judging the consistency of that measure with other provisions under Part III of the SCM Agreement, as the Panel’s analysis suggests. There is no support for such a presumption in the text of the SCM Agreement.

64. The Panel, and to a greater extent the EU, attempts to justify the Panel’s findings as inferences founded on evidence. In reality, though, the Panel’s findings are nothing more than assumptions founded on oversimplified economic theory that ignored evidence of the reality of Boeing’s pricing behavior. Accordingly, the Panel’s conclusion that the tax subsidies had an effect on the prices Boeing charged for LCA is without foundation.

65. The Panel’s conclusion with respect to the specific effects of the tax subsidies on Airbus is no less flawed. Specifically, without any explanation or analysis of particular sales or third country markets, the Panel found that it was “inescapable to also arrive at the conclusion that in

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<sup>89</sup> See Panel Report, para. 7.1819.

<sup>90</sup> EU Other Appellee Submission, paras. 604-609.

law the effects of the subsidies on Airbus’ prices and sales constitute significant lost sales and significant price suppression . . . as well as displacement and impedance of exports from third country markets . . . .”<sup>91</sup> Yet, the Panel did not identify any actual sales that Airbus lost, and the Panel did not identify any actual third country market from which Airbus’ exports were displaced or impeded.

66. The EU argues that the Panel was not required to “specifically identify, address, and discuss individual sales campaigns in order to make a finding of significant lost sales.”<sup>92</sup> This is because, as the EU explains, the Panel examined lost sales on a “global basis.”<sup>93</sup> The EU asserts that the Panel’s analysis was “fully consistent” with the Appellate Body’s guidance in *EC – Large Civil Aircraft*, and the EU even highlights a portion of the Appellate Body report,<sup>94</sup> wherein the Appellate Body explained that the lost sales analysis:

would involve a comparison of the sales actually made by the competing firm(s) of the complaining Member with a counterfactual scenario in which the firm(s) of the respondent Member would not have received the challenged subsidies. There would be lost sales where the counterfactual scenario shows that sales won by the subsidized firm(s) of the respondent Member would have been made instead by the competing firm(s) of the complaining Member, thus revealing the effect of the challenged subsidies.<sup>95</sup>

67. Here, the Panel simply did not undertake a counterfactual analysis that in any way resembles what the Appellate Body described. As the Appellate Body explained:

We further understand lost sales to be a relational concept that includes consideration of the behaviour of both the subsidized firm(s), which must have won the sales, and the competing firm(s), which allegedly lost the sales.<sup>96</sup>

68. The Panel never considered the behavior of Boeing or Airbus in order to answer the fundamental question: if Boeing had not received the tax subsidies, does that mean that sales by

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<sup>91</sup> Panel Report, para. 7.1822.

<sup>92</sup> EU Other Appellee Submission, para. 648.

<sup>93</sup> EU Other Appellee Submission, para. 649.

<sup>94</sup> EU Other Appellee Submission, para. 650.

<sup>95</sup> *EC – Large Civil Aircraft (AB)*, para. 1216.

<sup>96</sup> *EC – Large Civil Aircraft (AB)*, para. 1214.

Boeing “would have been made instead” by Airbus?<sup>97</sup> Despite having before it “considerable evidence and argument,”<sup>98</sup> the Panel utterly failed to engage any of that evidence or argument in its analysis of lost sales. Accordingly, the Panel’s finding that the effect of the tax subsidies was significant lost sales for Airbus is without any foundation. Additionally, the Panel failed in this regard to meet its obligation under Article 12.7 of the DSU to “set out the findings of fact, the applicability of relevant provisions and the basic rationale behind any findings and recommendations that it makes.”

69. The EU similarly argues that the Panel was not required to identify particular third country markets, and that it was permissible for the Panel to analyze displacement or impedance in terms of the world market.<sup>99</sup> In the EU’s view:

Every lost sale to Airbus involving an airline in a third-country market in those two {product} markets necessarily resulted in the displacement or impedance of Airbus’ market share in that third-country LCA market. Therefore, there was no need for the Panel to take an additional step and identify the specific third-country markets where *displacement or impedance would automatically flow from the existence of a lost sale in the global market.*<sup>100</sup>

70. The EU’s arguments and the Panel’s analysis are fundamentally at odds with the text of Article 6.3(b) of the SCM Agreement and inconsistent with the Appellate Body’s guidance in *EC – Large Civil Aircraft*. In that dispute, the Appellate Body explained that:

There may also be cases where the geographic dimension of a particular market exceeds national boundaries or could be the world market, even though *Articles 6.3(a) and 6.3(b) would focus the analysis of displacement and impedance on the territory of the subsidizing Member or third countries involved.*<sup>101</sup>

71. The Appellate Body further clarified that:

{A} “market”, within the meaning of Articles 6.3(a) and 6.3(b) of the SCM Agreement, is a set of products *in a particular geographical area* that are in actual or potential competition with each other. An assessment of the competitive

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<sup>97</sup> *EC – Large Civil Aircraft (AB)*, para. 1216.

<sup>98</sup> EU Other Appellee Submission, para. 653.

<sup>99</sup> EU Other Appellee Submission, paras. 671-677.

<sup>100</sup> EU Other Appellee Submission, para. 684 (emphasis added).

<sup>101</sup> *EC – Large Civil Aircraft (AB)*, para. 1117 (emphasis added).

relationship between products *in the market* is required in order to determine whether and to what extent one product may displace another.<sup>102</sup>

72. In addition, the Appellate Body stated that:

*{T}he assessment of displacement or impedance under subparagraphs (a) and (b) of Article 6.3 has a well-defined geographic focus. By contrast, the reference to the ‘same market’ in subparagraph (c) allows more flexibility in defining the relevant market, which can include the world market.*<sup>103</sup>

73. As these passages make clear, the Appellate Body has found that it is necessary to assess displacement or impedance under Article 6.3(b) of the SCM Agreement with respect to individual third country markets. An analysis in terms of the world market, which the EU suggests that the Panel undertook, is inconsistent with the requirements of Article 6.3(b).

74. The EU is also incorrect in its assertion that a finding of displacement or impedance “would automatically flow from the existence of a lost sale in the global market.”<sup>104</sup> As an initial matter, the EU conflates the concepts of lost sales, displacement, and impedance. Doing so reduces the terms displacement and impedance to a nullity, contrary to the customary rules of treaty interpretation.

75. In addition, the Appellate Body has explained that “a panel assessing a claim of displacement would have to look at clearly discernible trends during the reference period.”<sup>105</sup> In *EC – Large Civil Aircraft*, when analyzing third country market displacement on appeal on a country-by-country basis, the Appellate Body was critical of the Panel’s analysis because “a general statement that any sale to Airbus is at the expense of Boeing does not provide any analysis of market share developments, much less identify clear trends over the reference period in the relevant geographic market.”<sup>106</sup>

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<sup>102</sup> *EC – Large Civil Aircraft (AB)*, para. 1119 (emphasis added).

<sup>103</sup> *EC – Large Civil Aircraft (AB)*, para. 1218 (emphasis added).

<sup>104</sup> EU Other Appellee Submission, para. 684.

<sup>105</sup> *EC – Large Civil Aircraft (AB)*, para. 1166.

<sup>106</sup> *EC – Large Civil Aircraft (AB)*, para. 1188.

76. Here, the Panel made no effort whatsoever to look at “clearly discernible trends.”<sup>107</sup> Instead, as the EU explains, it appears that the Panel simply understood that every sale Airbus lost “automatically”<sup>108</sup> indicated displacement or impedance of Airbus’ exports in some third country market. That reflects a deeply flawed understanding of Article 6.3(b) of the SCM Agreement. Additionally, the Panel’s conclusory finding of displacement or impedance again fails to meet the standard of Article 12.7 of the DSU.

77. The consequence of the numerous errors in the Panel’s serious prejudice analysis is its incorrect conclusion that there existed a genuine and substantial relationship of cause and effect between the tax subsidies and the adverse effects alleged by the EU. Accordingly, the United States respectfully requests that the Appellate Body reverse the Panel’s findings under Articles 5 and 6(b)-(c) of the SCM Agreement.

### **III. ALLOCATION OF PATENT RIGHTS UNDER U.S. GOVERNMENT CONTRACTS**

78. As a final point, the Appellate Body decided at the last hearing that it would discuss subsidy issues associated with patent rights under U.S. government contracts at this hearing. Our appellee submission explained in detail why the Panel was correct to reject the EU’s claims that government-wide patent practices became specific when administered by NASA and DoD, and we will not repeat the analysis now. We would just like to add one point today: In its opening statement at the first hearing, the EU faults the Panel for not addressing its assertions of *de facto* specificity by reason of disproportionality under Article 2.1(c).<sup>109</sup> The EU is mistaken because there was no relevant argument to address. Article 2.1(c) frames the analysis in terms of whether there was “the granting of disproportionately large amounts of subsidy to certain enterprises.” Thus, disproportionality depends on “the subsidy,” and not particular granting authorities. As the EU assertions covered only NASA contracts and DoD contracts,<sup>110</sup> they did not provide any information with regard to the subsidy as granted by other entities and, therefore, did not contain any relevant information.

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<sup>107</sup> EC – Large Civil Aircraft (AB), para. 1166.

<sup>108</sup> EU Other Appellee Submission, para. 684 (emphasis added).

<sup>109</sup> Panel Report, para. 44.

<sup>110</sup> EC FWS, paras. 854-856; EC SWS 578-582.

**IV. THE EU SUPPLEMENTAL MEMORANDUM**

79. In its supplemental memorandum, the EU made a number of statements and assertions with regard to the issues discussed in the August session of the hearing. We consider that our previous submissions have already addressed all of those points. We will not repeat those points today, but direct the Appellate Body to our submissions for a rebuttal of the EU arguments. If you have specific questions on any of the statements and assertions in the EU supplemental memorandum, we will be happy to address them.

**CONCLUSION**

80. Thank you for your attention today. We look forward to responding to your questions.

**TABLE OF REPORTS AND OTHER DOCUMENTS**

<b>Short Form</b>	<b>Full Citation</b>
<i>Panel Report</i>	Panel Report, <i>United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint)</i> , WT/DS353/R, circulated on 31 March 2011
<i>EC – Large Civil Aircraft</i>	Panel Report, <i>European Communities And Certain Member States – Measures Affecting Trade in Large Civil Aircraft</i> , WT/DS316/R, circulated 30 June 2010
<i>US – Upland Cotton (AB)</i>	Appellate Body Report, <i>United States – Subsidies on Upland Cotton</i> , WT/DS267/AB/R, adopted 21 March 2005
<i>US – Upland Cotton (21.5) (AB)</i>	Appellate Body Report, <i>United States – Subsidies on Upland Cotton – Recourse to Article 21.5 of the DSU by Brazil</i> , WT/DS267/AB/RW, adopted 20 June 2008



## TABLE OF ABBREVIATIONS

ACT Program	NASA Advanced Composite Technology Program
AST Program	NASA Advanced Subsonic Technology Program
DUS&T Program	DoD Dual Use Science and Technology Program
EU FWS	First Written Submission by the European Communities, <i>United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint)</i> (DS353) (11 July 2007)
EC FCOS	First Confidential Oral Statement of the European Communities, <i>United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint)</i> (DS353) (26 September 2007)
EC RPQ	Response of the European Communities to the Panel’s Questions  Includes:  Response of the European Communities to the First Set of Questions from the Panel to the Parties (12 May 2007) and;  Response of the European Communities to the Second Set of Questions from the Panel to the Parties (14 April 2008) and;  Response of the European Communities to the Third Set of Questions from the Panel to the Parties (31 July 2009) and
EC SWS	Second Written Submission by the European Communities, <i>United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint)</i> (DS353) (19 November 2007)
HPCC	High Performance Computing and Communication Program
HSR Program	NASA High Speed Research Program
ManTech Program	DoD Manufacturing Technology Program
QAT Program	NASA Quiet Aircraft Technology Program
R&T Base Program	NASA Research and Technology Base Program
US Comment on EC RPQ XXX	Comments of the United States on the Response of the European Communities to the Questions from the Panel

	<p>Includes:</p> <p>Comments of the United States on the Response of the European Communities to the First Set of Questions from the Panel to the Parties (5 December 2007) and;</p> <p>Comments of the United States on the Response of the European Communities to the Second Set of Questions from the Panel to the Parties (5 May 2008) and;</p> <p>Comments of the United States on the Response of the European Communities to the Third Set of Questions from the Panel to the Parties (21 August 2009)</p>
US FWS	First Written Submission by the United States, <i>United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint)</i> (DS353) (13 July 2007)
US SWS	Second Written Submission by the United States, <i>United States – Measures Affecting Trade in Large Civil Aircraft (Second Complaint)</i> (DS353) (9 February 2007)
VSP	NASA Vehicle Systems Program