

# TRANSPORTATION OF DANGEROUS GOODS

**FINAL REPORT** 

Submitted to:

Transport Canada

**EKOS RESEARCH ASSOCIATES INC.** 

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## TABLE OF CONTENTS

1.	Background	1
2.	Methodology	3
3.	Executive Summary	5
4.	Detailed Findings	11
	4.1 Perceptions of Air Travel	
	4.2 Awareness of Dangerous Goods Regulations	14
	4.3 Knowledge of Dangerous Goods	23
	4.4 Communications	24
	4.5 Flying Profile	28

APPENDIX A: Survey Instrument

## 1. BACKGROUND

According to CATSA, in the last year, Canadian airport security staff intercepted 845,000 prohibited items, 282,000 of which were considered dangerous goods because they were flammable, explosive, toxic, or potentially harmful to people or the environment. Given the threat to aviation safety associated with the release of dangerous goods during flight, both government and industry have a vested interest in ensuring that the public is encouraged to comply with requirements that ensure the safe transport of these goods.

The Transportation of Dangerous Goods Regulations (TDGR) and the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TIs) outline requirements for the handling, offering for transport, transport and import of dangerous goods to, from or within Canada. The Dangerous Goods Standards Division of Commercial and Business Aviation is responsible for providing technical advice on the maintenance and development of the TDGR as it pertains to the transport of dangerous goods by air, and the development and implementation of a Multi-year Public Awareness Program to promote the safe transport of dangerous goods by air.

Unlike passenger security screening, where airlines rely on significant human and technological resources, the absence of dangerous goods on flights is based on public compliance, through knowledge and awareness of regulations. Elements of the population, however, continue to be unaware of regulations and ship or pack undeclared dangerous goods. In light of these oversights, the Dangerous Goods Public Awareness Committee (DGPAC) was created to promote cooperation and partnership with industry to increase the public's knowledge of:

- the hazards associated with the transport of dangerous goods by air, and
- > the mechanisms for determining how these goods can be transported safely on board an aircraft.

The present study is designed to inform the DGPAC as to the general public's awareness of the hazards associated with the transport of dangerous goods by air and their level of awareness of the requirements regarding the transportation of such goods. It is also designed to inform the development of a public awareness campaign (e.g. target audiences, messaging and communications vehicles) and provide DGPAC with baseline statistical data to measure communications strategy success.

EKOS RESEARCH ASSOCIATES, 2005 • 1

<sup>&</sup>lt;sup>1</sup> The Ottawa Citizen, April 27, 2004.

## 2. METHODOLOGY

The study involved a telephone survey with **2,222** randomly selected respondents drawn from the general Canadian population (1,283 who had flown in the previous year). The survey was conducted between April 6 and April 19, 2005. The results are valid within a margin of error of +/- 2.1 percentage points, 19 times out of 20. The margin of error increases for population sub-group results.

The data was weighted based on Statistics Canada data according to age, gender, and region to ensure that the sample is representative of the general public in Canada aged 18 years and over.

## 3. EXECUTIVE SUMMARY

#### Perceptions of Air Travel/Air Safety

The survey began with a series of questions examining general views on air travel and air safety. This was done to ease respondents into the survey, and to provide context for the more specific dangerous goods questions.

Results reveal that Canadians express somewhat mixed views when asked about the performance of the air transportation industry in general. The majority of Canadians (61 per cent) believe the air transportation industry is "working so-so" but in need of some improvement. Roughly the same proportion of Canadians feel that the air transportation industry is not working well and needs major changes (17 per cent) as feel the system is working very well (16 per cent). These findings are largely consistent between Canadians who have flown in the previous year and those who have not.

Canadians were also asked to rate how air travel compares across three key indicators (quality of service, affordability, and safety and security) compared to three years ago. Canadians express mixed/negative views on the affordability and quality of service of air travel relative to previous years, however, Canadians are largely positive in their views on the safety and security of air travel relative to three years ago. A solid majority of Canadians (60 per cent) believe safety of air travel has improved in recent years, and only one in ten (10 per cent) believe the safety of air travel has worsened relative to earlier in the decade (the remainder feel that safety and security has remained the same).

This high safety rating may be a reflection of the fact that the terrorist attacks on September 11th happened just over three years ago, however, other findings also suggest that Canadians are largely satisfied with the safety of air travel. For instance, two thirds of Canadians (67 per cent) agree that when it comes to safety and security, the airline industry believes in the importance of complying with regulations as much as the government does; and only 14 per cent of Canadians disagree with this idea. Moreover, a solid majority of Canadians (64 per cent) agree with the idea that even if they can't see them, there are sufficient procedures in place to protect air travellers, and fewer than one in five (18 per cent) disagree.

However, the findings also reveal that Canadians desire more information about measures to improve the safety of air travel. The plurality of Canadians (45 per cent) feel there is not enough information available regarding precautions taken to improve the safety of air travel in Canada, and only one in four (26 per cent) disagree with this idea.

#### Awareness of Dangerous Goods Regulations

The survey narrowed its focus to examine the key issues for the study — namely, awareness, knowledge, and preferred communications about dangerous goods regulations.

Transport Canada has undertaken a campaign to inform Canadians about the transport of dangerous goods by air: this campaign features posters and brochures carrying the tag line "Some things were never meant to fly" (referring to a range of items that are not allowed to be transported by air). Consequently, as part of this survey, respondents were asked if they had ever heard or seen the phrase "some things were never meant to fly". Results reveal that a substantial proportion of Canadians (44 per cent) indicated that they had heard this phrase.

However, further probing of this question suggests that awareness of this phrase (as it relates to the transport of dangerous goods) is exaggerated. When asked, unaided, where they had heard or seen this phrase, almost four in ten of those claiming exposure to the campaign (37 per cent) were unable to identify where they had seen or heard this phrase. Moreover, among respondents able to provide a response, the plurality (25 per cent) indicated "word of mouth" (and many of these respondents indicated they had heard this phrase generally – i.e., "that idea is never going to fly" – *not* in relation to dangerous goods).

Despite potentially exaggerated awareness of Transport Canada's campaign to inform Canadians about dangerous goods, survey results reveal that a strong majority (78 per cent) of Canadians indicate that they are either very (33 per cent) or somewhat (45 per cent) familiar with regulations regarding items that can and cannot be brought onto an aircraft (this number rises to fully 93 per cent among frequent flyers). Fewer than one in four (22 per cent) indicate they are not very (14 per cent) or not at all (8 per cent) familiar with dangerous goods regulations. It is instructive to note that those with greater familiarity of dangerous goods regulations are most confident about air safety in general.

Those who indicated they were very or somewhat familiar with these regulations were asked, unprompted, where they obtained information about these regulations. Airports/signs (22 per cent), past experience when flying (16 per cent), and word of mouth (12 per cent) were mentioned most often.

Reinforcing the idea that Canadians feel reasonably informed about dangerous goods regulations, most Canadians (61 per cent) generally believe that they have enough information to comply with regulations which prohibit dangerous goods from being transported by air. Fewer than four in ten (38 per cent) indicate they do not have enough information about these regulations.

Despite high levels of self-rated familiarity with items which cannot be brought onto aircraft, the vast majority of Canadians still believe it is important that citizens be made aware of dangerous goods that cannot be transported by air. Fully nine in ten (89 per cent) feel this is important, and virtually no one thinks it is unimportant (and these findings are consistent among both flyers and non-flyers).

Moreover, a strong majority of Canadians (79 per cent) believe that the Government of Canada should do more to make Canadians aware of regulations for the safe transport of dangerous goods. Only about one in ten (11 per cent) disagree with this idea.

Canadians also indicate a willingness to seek out information about this issue: fully 86 per cent say they would check with airport or airline staff if they thought they might be bringing a dangerous good onto an aircraft (and fewer than one in ten disagree with this idea). Indeed, survey results suggest that more than four in ten Canadians (43 per cent) have actually looked for information about what goods they can bring onto an aircraft before they went on their trip.

Despite high self-rated awareness of dangerous goods regulations, a relatively large proportion of Canadians (29 per cent) indicate they have packed a dangerous good (and the number rises to about four in ten — 37 per cent — among more frequent flyers).

#### **Knowledge of Dangerous Goods/Knowledge Test**

Looking at knowledge of dangerous goods in more detail, Canadians were read a list of items that one might consider bringing onto an aircraft, and asked whether they thought each of these items would be allowed on an airplane in their baggage.

Most Canadians (correctly) believe that oxygen for medical use would be allowed on an airplane: 70 per cent indicated this would be allowed on an airplane. However, across several of the other items tested, results are more mixed. Half of Canadians (50 per cent) incorrectly believe that nail polish remover would not be allowed on an aircraft, and over half of Canadians (54 per cent) incorrectly believe that hair spray would not be allowed on an airplane. Moreover, fully eight in ten (78 per cent) incorrectly believe that knitting needles would not be allowed on an airplane. These findings suggest that the high levels of self-rated awareness of dangerous goods discussed earlier may be somewhat exaggerated.

Canadians appear to have a better sense of whether the other items tested would be allowed on an airplane or not. At least three quarters understand that "dangerous goods" such as wooden matches, lighters and lighter fluid, fire extinguishers, oven cleaner, paint thinner, and camping stove/cylinder are not allowed on an aircraft.

#### Communications

The survey went on to examine how to best communicate dangerous goods regulations to the Canadian public.

Respondents were asked, unaided, from whom they would primarily receive information about dangerous goods regulations. Airlines top the list – mentioned by more than four in ten Canadians (43 per cent) – followed distantly by the federal government in general (23 per cent). Travel agencies (14 per cent),

Transport Canada specifically (5 per cent), and the media (3 per cent) round out the top five responses. All other responses were mentioned by two per cent or fewer Canadians.

Despite not being a top-of-mind source of information about dangerous goods regulations, Transport Canada tops the list when Canadians are asked who they trust to talk about air safety (73 per cent of Canadian assign high trust levels to the Department). Airlines (70 per cent), and professional associations (68 per cent) are also assigned high levels of trust to speak about this issue. Just over half of Canadians assign high trust to travel agencies (57 per cent) or the federal government in general (53 per cent). Interestingly, the media is seen as by far the least trustworthy source of information, among the options tested, with only one in three Canadians (33 per cent) assigning high trust to the media to talk about air travel safety.

Respondents were also asked about the effectiveness of a range of methods to provide information about dangerous goods regulations. Among the options tested, a brochure with airline tickets (80 per cent), and a brochure with passports (75 per cent) were seen as most effective. Two-thirds of Canadians also felt that posters in airports (67 per cent), and brochures in travel agencies (63 per cent) would be effective in providing Canadians with information about the transport of dangerous goods. Just over half (56 per cent) thought a Government of Canada website would be an effective means of communicating this information to Canadians, and just under half (49 per cent) thought a brochure sent to Canadian homes would be effective in providing information about dangerous goods regulations.

#### Conclusions

Survey results reveal high levels of self-rated awareness of dangerous good regulations (particularly among those who have flown in past year), and it is instructive to note that those with greater familiarity of dangerous goods regulations are most confident about air safety. However, the knowledge test reveals more mixed results, suggesting that awareness of dangerous goods may be exaggerated.

The survey also indicates strong support for government efforts to communicate dangerous goods regulations to Canadians (consistent among both flyers and non-flyers), and strong interest/willingness to seek out more information about dangerous goods. However, findings also reveal that a relatively large proportion of Canadians have knowingly packed dangerous items (particularly recent flyers), suggesting this should be a focus for communications.

The communications methods tested that are directly associated with air travel (airline tickets, passports, posters in airports) are seen as most effective to communicate dangerous goods regulations. Study findings also indicate high trust levels are assigned to both airlines and Transport Canada (moreso than the federal government in general) when talking about air safety, however, airlines much more likely to be a preferred source of information about dangerous goods.

#### **Implications**

Survey results suggest that efforts aimed at informing the public about the transport of dangerous goods should be well received: there is strong interest in information about the transport of dangerous goods, and strong support for government involvement in this area (among both flyers and non-flyers).

Study findings suggest that communications should focus on continuing to raise awareness/knowledge of dangerous goods, as well as educating Canadians about the consequences of transporting dangerous goods by air.

Results also suggest that airlines are logical partners for communicating dangerous goods regulations: they are assigned high trust *and* high top-of-mind preference as a source of information about dangerous goods.

## 4. DETAILED FINDINGS

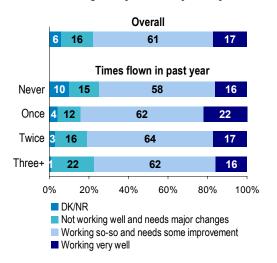
Respondents were first asked a series of broader questions addressing their views on air travel in general.

#### 4.1 Perceptions of Air Travel

Among these more general questions was an evaluation of how well Canadians thought the air transportation industry in Canada was functioning overall.

#### **Perceptions of Air Transportation Industry**

"Overall, how well would you say the air transportation industry in Canada is working today? Would you say it is...?"

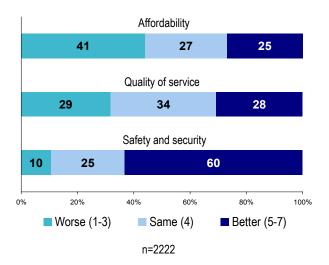


Results reveal that Canadians express somewhat mixed views on the performance of the air transportation industry. The majority of Canadians (61 per cent) believe the air transportation industry is "working so-so" but in need of some improvement. Roughly the same proportion of Canadians feel that the air transportation industry is not working well and needs major changes (17 per cent) as feel the system is working very well (16 per cent). These findings are largely consistent between Canadians who have flown in the previous year and those who have not (although more frequent flyers are somewhat more negative in their appraisal of the air transportation industry).

Canadians were also asked to rate how air travel compares across three key indicators (quality of service, affordability, and safety and security) compared to three years ago.

#### **Perceptions of Air Travel**

"Compared to three years ago, would you say that each of the following aspects of air travel is better, the same or worse?"



Perhaps reflecting the demise of Jetsgo (the discount air carrier that declared bankruptcy earlier this year), Canadians are most disappointed with the affordability of air travel relative to previous years: the plurality (41 per cent) think the affordability of air travel is worse than it was three years, and only one in four (25 per cent) think this aspect of air travel is better than it was earlier in the decade.

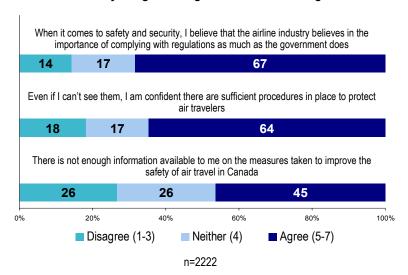
Canadians express mixed views on the quality of service of air travel relative to previous years. Roughly the same proportion believe this aspect of air travel has worsened (29 per cent) as feel it has improved (28 per cent). The remainder (34 per cent) believe the service quality of air travel has remained the same over the previous three years.

However, Canadians are largely positive in terms of their views on the safety and security of air travel relative to three years ago. A solid majority of Canadians (60 per cent) believe this aspect of air travel has improved in recent years, and only one in ten (10 per cent) believe the safety of air travel has worsened relative to earlier in the decade (the remainder feel that safety and security has remained the same).

The survey also examined a broad range of issues related to the safety and security of air travel. Survey results indicate that the majority of Canadians believe the airline industry is as committed to safety as is the government. Two thirds of Canadians (67 per cent) agree that when it comes to safety and security, the airline industry believes in the importance of complying with regulations as much as the government does; and only 14 per cent of Canadians disagree with this idea.

#### **Perceptions of Air Travel Safety and Security**

"To what extent do you agree/disagree with the following statements?"



Canadians also largely agree with the idea that even if they can't see them, there are sufficient procedures in place to protect air travellers. About two thirds (64 per cent) agree with this idea, and fewer than one in five (18 per cent) disagree. Residents of the Prairies (70 per cent), those under 25 years of age (72 per cent), and lower income earners (67 per cent) are particularly likely to agree that there are sufficient air safety procedures in place.

However, the findings also reveal that Canadians desire more information about measures to improve the safety of air travel. The plurality of Canadians (45 per cent) feel there is not enough information available regarding the precautions taken to improve the safety of air travel in Canada and only one in four (26 per cent) disagree with this idea.

- Residents of Quebec (48 per cent), the Prairies (47 per cent), and seniors (48 per cent) are more likely to believe that there is not enough information available to them.
- Interestingly, as the level of education and income increases so does *disagreement* with this idea.

## 4.2 AWARENESS OF DANGEROUS GOODS REGULATIONS

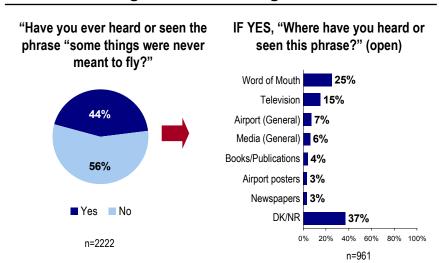
The survey narrowed its focus to examine the key issues for the study — namely, awareness, knowledge, and preferred communications about dangerous goods regulations.

Transport Canada has undertaken a campaign to inform Canadians about the transport of dangerous goods by air. This campaign features posters and brochures carrying the tag line "Some things were never meant to fly" (referring to a range of items that are not allowed to be transported by air).

Consequently, as part of this survey, respondents were asked if they had ever heard or seen the phrase "some things were never meant to fly". Results reveal that a substantial proportion of Canadians (44 per cent) indicated that they had heard this phrase, while the majority (56 per cent) indicated they had not.

- Alberta residents (54 per cent), men (47 per cent), those aged 45-64 (47 per cent), those with high school education ((46 per cent) and those earning \$100,000 were more likely to indicate that they had heard this phrase.
- Conversely, residents of Quebec (66 per cent), women (59 per cent), and seniors (64 per cent) were more likely to indicate that they had not heard this phrase.

#### **Dangerous Goods Regulations**



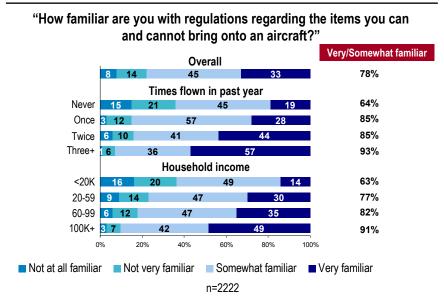
However, further probing of this question suggests that awareness of this phrase (as it relates to the transport of dangerous goods) is exaggerated. When asked, unaided, where they had heard or seen this phrase, almost four in ten of those claiming exposure to the campaign (37 per cent) were unable to identify where they had seen or heard this phrase. Moreover, among respondents able to provide a response, the plurality (25 per cent) indicated "word of mouth" (and many of these respondents indicated they had heard this phrase generally – i.e., "that idea is never going to fly" – *not* in relation to dangerous goods).

Television (15 per cent), airports (7 per cent), and media in general (6 per cent) were also mentioned by a relatively large proportion of respondents who indicated they had seen or heard this phrase. Airport posters (3 per cent) and newspapers (3 per cent) were also identified as sources for this phrase. All other responses were mentioned by fewer than 3 per cent of these respondents.

All respondents were also asked for their self-rated familiarity with regulations regarding the items that can and cannot be brought onto an aircraft. A surprisingly strong majority (78 per cent) of Canadians indicate that they are either very (33 per cent) or somewhat (45 per cent) familiar with these regulations (and this proportion rises to fully 93 per cent among frequent flyers). Fewer than one in four (22 per cent) Canadians indicate they are not very (14 per cent) or not at all (8 per cent) familiar with dangerous goods regulations.

Residents of British Columbia and Ontario (37 per cent), women (35 per cent), those aged 45-64 (39 per cent), and those with higher income/higher educational attainment are particularly likely to indicate they are very familiar with dangerous goods regulations.

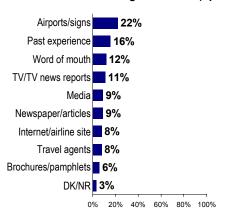
#### **Awareness of Dangerous Goods Regulations**



Those who indicated they were very or somewhat familiar with these regulations were asked, unprompted, where they obtained information about these regulations. Airports/signs (22 per cent), past experience when flying (16 per cent), and word of mouth (12 per cent) were mentioned most often. TV/TV news (11 per cent), the media in general (9 per cent), and newspapers (9 per cent) were second tier responses. Airline web sites (8 per cent), travel agents (8 per cent), and brochures/pamphlets (6 per cent) were also mentioned by a relatively large proportion of these respondents. All other responses were mentioned by fewer than 5 per cent of these respondents.

#### **Awareness of Dangerous Goods Regulations**

IF VERY OR SOMEWHAT FAMILIAR: "Where did you get your information about these regulations?" (open)

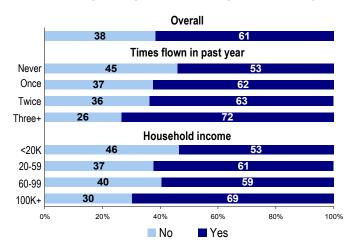


Most Canadians (61 per cent) also generally believe that they have enough information to comply with regulations which prohibit dangerous goods from being transported by air (rising to 72 per cent among frequent flyers). Fewer than four in ten (38 per cent) indicate they do not have enough information about these regulations.

- Residents of Alberta (67 per cent), men (63 per cent), those aged 25 and under (64 per cent), and those earning \$100,000 or more (69 per cent) are most likely to say they have enough information to comply with these regulations.
- Conversely, those in Quebec (43 per cent), women (41 per cent) and those aged 25-44 (41 per cent) are more likely to indicate they do not have enough information to comply.

## Adequacy of Information to Comply with Dangerous Goods Regulations

"Do you feel you have enough information to comply with regulations which prohibit dangerous goods from being transported by air?"

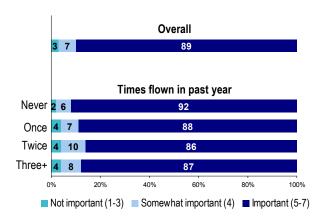


Despite high levels of self-rated familiarity with items which cannot be brought onto aircraft, the vast majority of Canadians strongly believe it is important that citizens be made aware of dangerous goods that cannot be transported by air. Fully nine in ten (89 per cent) feel this is important, and virtually no one thinks it is unimportant. Interestingly, support for increasing awareness of dangerous goods regulations is consistently high among both flyers and non-flyers.

> Residents of British Columbia (92 per cent), women (91 per cent), and those 45-64 (91 per cent) are particularly likely to feel it is important for Canadians to be made aware of dangerous goods.

### Importance of Awareness of Dangerous Good Regulations

"How important is it that Canadians be made aware of dangerous goods that cannot be transported by air?"



Moreover, a strong majority of Canadians (79 per cent) also believe that the Government of Canada should do more to make Canadians aware of regulations for the safe transport of dangerous goods. Only about one in ten (11 per cent) disagree with this idea.

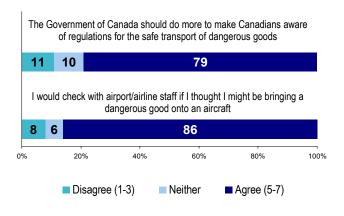
Those from the Atlantic region (87 per cent), women (81 per cent), older Canadians, lower income Canadians, and those with less educational attainment are most likely to feel the government should do more to make Canadians aware of dangerous goods regulations.

Canadians also indicate a willingness to seek out information about this issue: fully 86 per cent say they would check with airport or airline staff if they thought they might be bringing a dangerous good onto an aircraft (and fewer than one in ten disagree with this idea).

Residents of the Prairies (90 per cent), women (87 per cent), and those between 45 and 64 years of age (89 per cent) are particularly likely to indicate they would check if they thought they might be bringing a dangerous good on an aircraft.

## Desire for More Information about Transportation of Dangerous Goods

"To what extent do you agree or disagree with each of the following statements?"

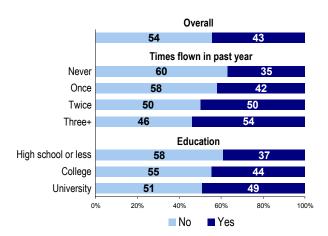


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Indeed, survey results suggest that more than four in ten Canadians (43 per cent) say they have looked for information about what goods they can bring onto an aircraft before they went on their trip (rising to 54 per cent among frequent flyers). However, it should be noted that the majority of Canadians (54 per cent) say they have not sought out this type of information.

#### **Information Seeking**

"Have you ever looked for information about what goods you can bring on an aircraft before you went on a trip?"

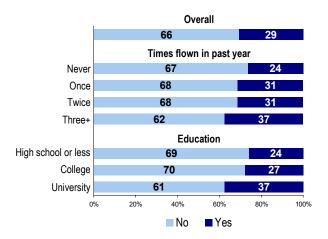


Despite high self-rated awareness of dangerous goods regulations, a relatively large proportion of Canadians (29 per cent) indicate they have packed a dangerous good (and the number rises to about four in ten — 37 per cent — among more frequent flyers), although the majority of Canadians (66 per cent) say they have not packed an item which could be labelled as a dangerous good when travelling by air.

- Residents of British Columbia (34 per cent) and women (32 per cent) are more likely than their counterparts to say that they have packed a "dangerous good". Interestingly, those with the higher formal education, and higher income earners are also more likely to say they have packed a dangerous good when flying.
- Residents of Quebec (71 per cent), those under 25 years of age (68 per cent), lower income earners, and those with less educational attainment are more likely to say that they have not packed a dangerous good.

#### **Self-Rated Behaviour**

"To the best of your knowledge, have you ever packed an item which could be labelled as a dangerous good when travelling by air?"

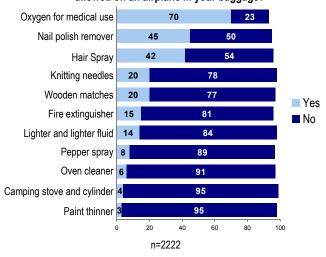


## 4.3 Knowledge of Dangerous Goods

Looking at knowledge of dangerous goods in more detail, Canadians were read a list of items that one might consider bringing onto an aircraft, and asked whether they thought each of these items would be allowed on an airplane in their baggage.

#### **Knowledge of Dangerous Goods**

"Now I am going to read you a list of items that one might consider bringing on an airplane, and I would like you to tell whether you think each of these items would be allowed on an airplane in your baggage?"



Most Canadians (correctly) believe that oxygen for medical use would be allowed on an airplane: 70 per cent indicated this would be allowed on an airplane.

However, across several of the other items tested, results are more mixed. Half of Canadians (50 per cent) incorrectly believe that nail polish remover would not be allowed on an aircraft, and over half of Canadians (54 per cent) incorrectly believe that hair spray would not be allowed on an airplane. Moreover, fully eight in ten (78 per cent) incorrectly believe that knitting needles would not be allowed on an airplane.

Canadians appear to have a better sense of whether the other items tested would be allowed on an airplane or not. At least three quarters understand that "dangerous goods" such as wooden matches, lighters and lighter fluid, fire extinguishers, oven cleaner, paint thinner, and camping stove/cylinder are not allowed on an aircraft.

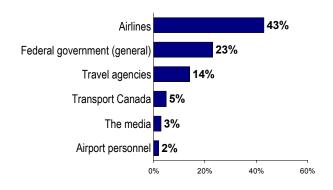
#### 4.4 COMMUNICATIONS

The survey went on to examine how to best communicate dangerous goods regulations to the general public.

Respondents were asked, unaided, from whom they would primarily receive information about dangerous goods regulations. Airlines top the list – mentioned by more than four in ten Canadians (43 per cent) – followed distantly by the federal government in general (23 per cent). Travel agencies (14 per cent), Transport Canada specifically (5 per cent), and the media (3 per cent) round out the top five responses. All other responses were mentioned by 2 per cent or fewer Canadians.

## Preferred Sources of Information about Dangerous Goods

"From whom would you primarily like to receive information about dangerous goods regulations?" (open)

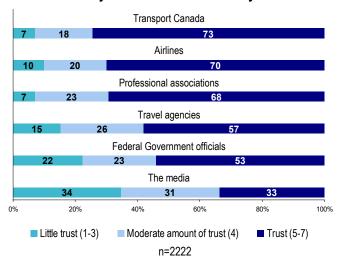


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Despite not being seen as a top-of-mind source of information, Transport Canada tops the list in term of trust to talk about air safety (73 per cent of Canadian assign high trust levels to the Department). Airlines (70 per cent) and professional associations (68 per cent) are also assigned high trust levels.

#### Trust in Sources to Talk about Air Safety

"Please tell me how much trust you have in each of the following when they talk about air travel safety?"



Just over half of Canadians assign high trust to travel agencies (57 per cent) or the federal government in general (53 per cent). Interestingly, the media is seen as by far the least trustworthy source of information, among the options tested, with only about one in three Canadians (33 per cent) assigning high trust to the media to talk about air travel safety.

Outlined below are the key regional and demographic differences across the most trustworthy sources of information about air travel safety (i.e., Transport Canada and the airlines):

#### Transport Canada

> Those from the Atlantic region (75 per cent), those aged 25-44 (80 per cent), and those with university education (78 per cent) assign higher levels of trust to Transport Canada.

#### Airlines

Albertans (75 per cent), those from the Prairies (75 per cent), and those under 25 years of age (79 per cent) are particularly likely to trust airlines when talking about air safety.

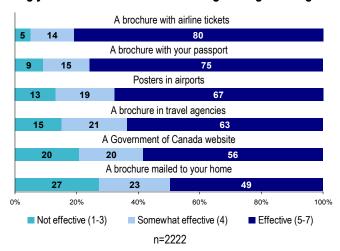
Respondents were also asked about the effectiveness of a range of methods to provide information about dangerous goods regulations. Among the options tested, a brochure with airline tickets (80 per cent), and a brochure with passports (75 per cent) were seen as most effective.

Two thirds of Canadians also felt that posters in airports (67 per cent), and brochures in travel agencies (63 per cent) would be effective in providing Canadians with information about the transport of dangerous goods.

Just over half (56 per cent) thought a Government of Canada website would be an effective means of communicating this information to Canadians, and just under half (49 per cent) thought a brochure sent to Canadian homes would be effective in providing information about dangerous goods regulations.

### Effectiveness of Methods to Provide Information About Regulations

"How effective would you say each of the following would be in providing you with information about dangerous goods regulations?"



Outlined below, we summarize the key sub-group differences across the methods that were seen as most effective in providing information about dangerous goods regulations (i.e., brochure with airline tickets, brochure with passports).

#### A brochure with airline tickets

Residents of both British Columbia and Quebec (82 per cent each), women (85 per cent), and those aged 25-44 (81 per cent) are most inclined to feel that a brochure with airline tickets would be "effective" in providing information about dangerous goods.

#### A brochure with your passport

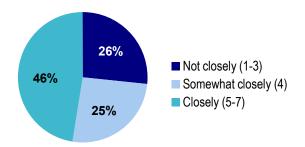
Prairies residents (80 per cent), women (78 per cent), and those with low levels of educational attainment are more likely than their counterparts likely to feel that a brochure with passports would be effective.

Currently, (hard copy) airline tickets contain information about which items are not allowed on an aircraft, therefore, we also asked Canadians how closely they read information on airline tickets (other than flight information). Survey results indicate that the plurality of Canadians (46 per cent) say they closely read information contained on airline tickets (beyond flight information). One in four (26 per cent) say they do not read this information closely, and the remainder (25 per cent) say they read this information somewhat closely.

These findings are fairly consistent across regional and demographic sub-groups, however, it is instructive to note that those Canadians who read airline tickets more closely also tend to express higher familiarity with dangerous goods regulations, and are more likely to feel they have enough information to comply with dangerous goods regulations (reinforcing the idea that airline tickets would be an effective method of communicating information about dangerous goods).

#### **Self-Rated Scrutiny of Airline Tickets**

"Other than flight information, how closely do you read the information contained on airline tickets?"



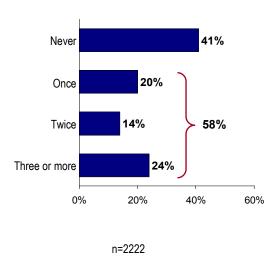
n=1349

#### 4.5 FLYING PROFILE

The survey also asked a number of questions regarding Canadians' flying behaviour. While these questions were primarily asked to add texture to the broader study issues (awareness, knowledge, and preferred communications about dangerous goods regulations), outlined below we provide a profile of Canadians' flying behaviour.

#### Flying Frequency

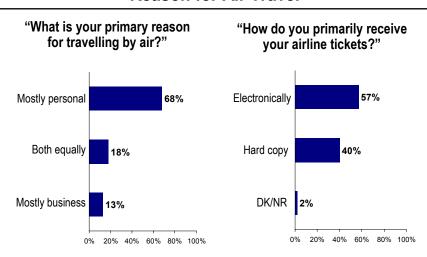
"How many times have you travelled by air in the past year?"



Just over four in ten of Canadians (41 per cent) indicate that they have not travelled by air in the previous year, and 58 per cent indicated they had flown one or more times. Among those who had travelled by air in the previous year, one in five (20 per cent) had flown once, 14 per cent had flown twice, and the remainder (24 per cent) had flown three times or more.

Higher income earners and those with higher educational attainment are particularly likely to be frequent flyers. The majority of Canadians who had flown in the previous year did so primarily for personal reasons. Thirteen per cent indicated they travelled by air primarily for business, and about one in five (18 per cent) travelled by air for both business and personal reasons equally.





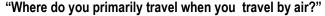
n=1283

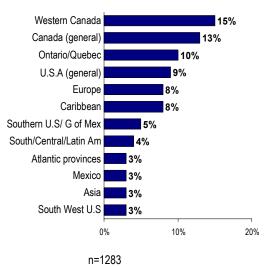
Survey results also indicate that the majority of Canadians (57 per cent) now primarily receive their airline tickets electronically, although a substantial minority (40 per cent) continue to receive hard copies of their airline tickets.

- Residents of Quebec (59 per cent), and people earning under \$20,000 (54 per cent) are more likely to receive hard copies of airline tickets.
- Conversely, those earning \$100,000 or more (71 per cent), those aged 25-44 years of age (66 per cent), and those with a university education (65 per cent) are more likely to receive airline tickets electronically.

When asked where they primarily travelled, responses are somewhat scattered, although most Canadian flyers travelled somewhere in Canada: 15 per cent travelled to Western Canada, 13 per cent indicated Canada in general, 10 per cent flew to Ontario/Quebec, and three per cent went to the Atlantic provinces. The U.S. (17 per cent) was also a primary destination for Canadian flyers (U.S.A. general at 9 percent, Southern U.S. at 5 percent, and South West U.S. at 3 per cent). Europe (8 per cent) and the Caribbean (8 per cent) were also mentioned by a relatively large proportion of respondents. All other responses were mentioned by fewer than five per cent of Canadian flyers.

#### **Primary Destinations of Air Travel**



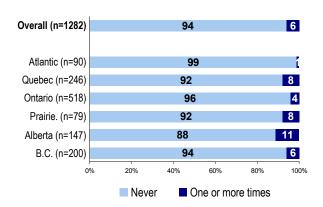


Given the need for transporting certain dangerous goods by air to the North, the survey also asked specifically about travel to Northern Canada. Results reveal that only six per cent of Canadian flyers have travelled to Northern Canada in the previous year. The vast majority (94 per cent) have not travelled by air to the North of Canada.

Albertans (11 per cent) are more likely than Canadians from the rest of the country to have visited Northern Canada in the last year.

**Travel to Northern Canada** 

"In the past year, how many times have you travelled by air to Northern Canada?"



# APPENDIX A SURVEY INSTRUMENT

## Transportation of Dangerous Goods Revised Questionnaire

Hello, my name is.....and I work for Ekos Research Associates. We are conducting a survey to obtain the views of Canadians on a range of important issues. Can I ask if you are at least 18 years old and a permanent resident of Canada?

#### **Perceptions of Air Travel Safety and Security Threats**

1. Overall, how well would you say the air transportation industry in Canada is working today? Would you say it is...?

Working very well
Working so-so and needs some improvement
Is not working well and needs major changes

Compared to three years ago, would you say that each of the following aspects of air travel is better, the same or worse? Please use a 7-point scale where 1 means much worst, 7 means much better, and the mid-point 4 means the same.

- 2. Quality of service
- 3. Affordability
- 4. Safety and security

Please tell me the extent to which you agree or disagree with each of the following statements, using a 7 point scale where 1 means strongly disagree, 7 means strongly agree, and the mid-point 4 means neither agree nor disagree. [READ AND RANDOMIZE]

- 5. When it comes to safety and security, I believe that the airline industry believes in the importance of complying with regulations as much as the government does.
- 6. Even if I can't see them, I am confident there are sufficient procedures in place to protect air travellers.
- 7. There is not enough information available to me on the measures taken to improve the safety of air travel in Canada.

#### **Awareness of Dangerous Goods Regulations**

8. Have you ever heard or seen the phrase "some things were never meant to fly"

Yes No

9. IF YES Where have you heard or seen this phrase? [OPEN]

**ASK ALL** 

10. How familiar are you with regulations regarding the items you can and cannot bring onto an aircraft? Would you say you are very familiar, somewhat familiar, not very familiar, or not at all familiar?

IF VERY OR SOMEWHAT FAMILIAR:

11. Where did you get your information about these regulations? [OPEN]

#### Knowledge

Now I am going to read you a list of items that one might consider bringing on an airplane, and I would like you to tell whether you think each of these items would be allowed on an airplane in your baggage? [READ AND RANDOMIZE]

- 12. Pepper spray
- 13. Nail polish remover
- 14. Lighter and lighter fluid
- 15. Paint thinner
- 16. Wooden matches
- 17. Fire extinguishers
- 18. Knitting needles
- 19. Oven cleaner
- 20. Camping stove and cylinder
- 21. Oxygen for medical use
- 22. Hair spray

23. As you may be aware, some items are prohibited from being brought on aircraft because of the danger they pose when being transported by air. These items are referred to as dangerous goods. Do you feel you have enough information to comply with regulations which prohibit dangerous goods from being transported by air?

Yes No

24. To the best of you knowledge, have you ever packed an item which could be labelled as a dangerous good when travelling by air?

Yes

No

25. Have you ever looked for information about what goods you can bring on an aircraft before you went on your trip?

Yes No

Please tell me the extent to which you agree or disagree with each of the following statements, using a 7 point scale where 1 means strongly disagree, 7 means strongly agree, and the mid-point 4 means neither agree nor disagree. [READ AND RANDOMIZE]

- 26. The Government of Canada should do more to make Canadians aware of regulations for the safe transport of dangerous goods by air.
- 27. I would check with airport/airline staff if I thought I might be bringing a dangerous good onto an aircraft

#### Communications

- 28. Other than flight information, how closely do read the information contained on airline tickets? Please use a 7-point scale where 1 means not at all closely, 7 means very closely, and the mid-point 4 means somewhat closely.
- 29. How important is it that Canadians be made aware of dangerous goods that cannot be transported by air? Please use a 7-point scale where 1 means not at all important, 7 means extremely important and the mid-point 4 means somewhat important

30. From whom would you primarily like to receive information about dangerous goods regulations? [OPEN – DO NOT READ – ACCEPT ONE RESPONSE]]

Airlines
Transport Canada
Federal government (general)
The media
Professional associations
Travel Agencies
Other (specify)

Please tell me how much trust you have in each of the following when they talk about air travel safety, using a 7-point scale where 1 means no trust at all, 7 means a great deal of trust, and the mid-point 4 means a moderate amount of trust? [READ AND RANDOMIZE]

- 31. Airlines
- 32. Transport Canada
- 33. Federal government officials
- 34. The media
- 35. Professional associations
- 36. Travel Agencies

How effective would you say each of the following would be in providing you with information about dangerous goods regulations? Please use a 7-point scale where 1 means not at all effective, 7 means extremely effective, and the mid-point 4 means somewhat effective. [READ AND RANDOMIZE]

- 37. A Government of Canada website
- 38. A brochure mailed to your home
- 39. Posters in airports
- 40. A brochure with airline tickets
- 41. A brochure with your passport
- 42. A brochure in travel agencies

#### **Demographics**

Now I have a few more questions to be used for statistical purposes only.

43. How many times have you travelled by air in the past year?

#### IF AT LEAST ONCE ASK Q44 TO Q47

44. What is your primary reason for travelling by air?

Business Pleasure

45. How do you primarily receive your airline tickets?

Electronically Hard copy

- 46. Where do you primarily travel when you travel by air? [OPEN] [PROBE- IF IN CANADA, WHAT PART OF CANADA; IF IN U.S. WHAT PART OF U.S.; IF INTERNATIONAL, WHAT COUNTRIES?]
- 47. In the past year, how many times have you travelled by air to Northern Canada (i.e., Nunavut, Yukon, Northwest Territories)
- 48. What is the language that you first learned at home in childhood and still understand?

English French Other

49. What is the highest level of schooling that you have completed?

Public/Elementary school or less (grade 1-8)
Some high school
Graduated from high school
Community/Technical college or CEGEP
Trade certification
Some community college or university
Bachelor's degree
Professional certification
Graduate degree
DK/NR

#### 50. Which of the following categories best describes your CURRENT employment status?

Self-employed
Employed full-time
Employed part-time
Seasonal employment
Term employment
Unemployed
Unemployed but looking for work
Student/Attending school full-time
Retired
Not in work force/Full-time Homemaker
Disability/sick leave
Maternity/paternal leave
Other (please specify)
DK/NR

#### 51. What is your annual HOUSEHOLD income from all sources before taxes?

<\$20,000 \$20,000-\$29,999 \$30,000-\$39,999 \$40,000-\$49,999 \$50,000-\$59,999 \$60,000-\$79,999 \$80,000-\$99,999 \$100,000 or more DK/NR

52. In what year were you born?

Thank you for your cooperation and time!