



House of Commons

Northern Ireland Affairs Committee

---

# Possible implications for Northern Ireland of the Daylight Saving Bill

---

Written evidence

*Only those submissions written specifically for the Committee and accepted by the Committee as evidence for the inquiry Northern Ireland as an enterprise zone are included.*



# List of written evidence

---

		<i>Page</i>
1	Translink	1
2	Edmund Slaine	2
3	Mary Lutton	3
4	Michael Lockyer	4
5	Parliamentary Advisory Council for Transport Safety	5
6	N C E McKinney	6
7	Northern Ireland Sports Forum	7
8	Institute of Directors Northern Ireland Division	8
9	George Callen	10
10	Royal Society for the Prevention of Accidents	11
11	Lighter Later	14
12	Federation of Small Businesses	16
13	Dr Mayer Hillman, Senior Fellow Emeritus, University of Westminster	17

## **Written evidence from Translink**

The proposal would effectively mean darker mornings for longer in the Autumn/Winter, particularly in the mornings when most traffic is on the roads at one time, i.e. schools, commuters. This is potentially more risky for vulnerable groups such as schoolchildren. Darker evenings in our view are not as big an issue as the majority of our schools traffic is over by 16:30/17:00 and the evening traffic is more staggered, with most commuters making their homeward journey between 17:30 and 18:00.

*4 March 2011*

## Written evidence from Edmund Slaine

1. Before I go to work each morning I walk my dogs and feed my free range poultry. I can just about get this done in GMT during the winter period, before heading to work at ~8 30 am. If we move into daylight saving I will not be able to see my poultry to feed them or let them outside in the morning. I would be afraid to let them out in the dark mornings because of predators. The daylight savings will have terrible implications for farmers during the winter months in Northern Ireland.

2. I prefer to travel to work in daylight and travel home in the dark. I always find that driving conditions are much worse in the morning. It's easier to deal with treacherous roads in daylight than at dark.

*7 March 2011*

## Written evidence from Mary Lutton

1. I feel it can not be stressed highly enough that the implications of the Daylight Saving Bill are different in the different areas of the United Kingdom.
2. Any “official” writing on the subject seem to focus on the effects on the South East of England as do the majority of the “letters” published in the press and the media in general.
3. In Northern Ireland where I live we are not only further North but further West. This means that the mornings are dark for longer with the increased dangers from traffic with people going to work and children going to school that that brings.
4. I have vivid recollections of the time when BST was retained throughout the winter as a trial. I spent an extra two months going to work in the dark and found that an extra hour in the evening did not mean that I was getting home in daylight (though it probably would for children at school). While I cannot claim to suffer from SAD I found this extremely depressing and as I worked in an environment where there is almost no natural light (namely an operating theatre) there was a prolonging of the period when I saw no daylight during the working week. At the end of the “trial” I can remember saying that I felt I was living the life of a pit pony.
5. It is not possible to overlook the effects on the Republic of Ireland are they to follow suit with a time change or to suffer the inconvenience of being in a different time zone to the country to whom their way of life is firmly linked. Many parts of Eire are even further West than Northern Ireland.

*8 March 2011*

## **Written evidence from Michael Lockyer**

So long as the daylight saving covers the whole of the United Kingdom and Northern Ireland, there will be controversy. The solution would be to stick to GMT for the whole year.

Regions may decide to change the hours of opening and closing schools to match the daylight hours, by a locally agreed principal.

Double summertime was used in World War II. In Kent it was daylight to after 2300hrs.

*10 March 2011*

## Written evidence from the Parliamentary Advisory Council for Transport Safety

1. This brief note is submitted by the Parliamentary Advisory Council for Transport Safety (PACTS). PACTS is a registered charity with the charitable objective: To protect human life through the promotion of transport safety for the public benefit. PACTS is also an associate Parliamentary group, bringing together practitioners and Parliamentarians to help the latter base policy upon evidence and good practice.
2. For many years, PACTS has been a strong supporter of the adoption of Single/Double Summer Time (SDST) since this will lead to a reduction of casualties on the roads in Great Britain. Evidence from the trial undertaken in 1968-71 shows clearly that casualties fell during the trial period. More recent analysis undertaken by PACTS looking at the reductions in deaths in recent years suggests that between 74 and 98 lives would be saved on current figures if SDST were to be adopted.
3. PACTS recognises that these figures apply to Great Britain not to Northern Ireland. The casualty figures for Northern Ireland are published separately from those for Great Britain. However, given that the reductions in deaths and serious injuries applied across all part of England, Scotland and Wales, it is difficult not to conclude that lives would also be saved by the enactment of this measure in Northern Ireland.
4. PACTS supports the Bill being proposed by Rebecca Harris MP since it calls for a review of the policy to be carried out across government. PACTS recognises that the implications of the adoption of SDST apply across a number of policy areas and that road safety cannot be the only reason for its adoption.
5. PACTS would therefore urge the Select Committee to support the gathering of adequate inter-departmental evidence in order to have a proper and informed debate about the arguments in favour and against the adoption of SDST. Such a process would help to ensure that policy is evidence-led.
6. Should the committee wish to call on PACTS to give oral evidence we would be happy to do so.

*17 March 2011*

## Written evidence from N C E McKinney

1. To call the Bill -Daylight Saving is a complete fallacy as we will have the same number of hours of daylight irrespective of how the clocks are advanced or retarded. We will just be shifting the daylight hours.
2. The hours of daylight are regulated by the passage of the sun and the latitude and in particular the longitude of a state or country. This is particularly important for N I with our northerly latitude and westerly longitude. NI time based on longitude should actually be G M T minus 1/2 hour.
3. Every 15 degrees of longitude is the equivalent of 1 hour by the passage of the sun (7 1/2 degrees equals a half hour ).Therefore taking zero longitude at Greenwich London all areas 7 1/2 degrees either side of Greenwich should be on Greenwich Mean time ( G M T )The proposed Daylight Saving Bill (?)will have N I on G M T + 2 hours.
4. What will this mean for N I ? In the months of November to the end of March we will have dark mornings and light evenings. This will be particularly noticeable in the west where on a bad morning it may well be dark until 1000.Assuming that a child's school day is between 0800 and 1600 this will be very detrimental.
5. It is often claimed that the proposed Bill will reduce accidents. I believe that it will only shift accidents from the evening to the morning due to the increased darkness in the morning.
6. I fail to understand how any potential costs benefits will arise. As an example we will have to keep the lights burning longer in the morning rather than have to switch them on in the evening.
7. I believe the proposed Bill has been ill thought out and will not be beneficial to Northern Ireland.
8. If the correct principles were adopted the U K as a whole (based on our longitude and the passage of the sun through our longitude) would remain on G M T throughout the entire year which would eliminate any necessity to shift our clocks whatsoever.
9. I believe all N Ireland M Ps should oppose this Bill.

*20 March 2011*

## Written evidence from the Northern Ireland Sports Forum

1. The Northern Ireland Sports Forum as the representative body for Governing Bodies of Sport in Northern Ireland will be making this submission on behalf of sport and recreation in Northern Ireland.
2. We would strongly support any proposal to move the clocks forward by one hour throughout the whole year as is proposed by Rebecca Harris's Private Members' Bill on daylight saving.
3. It goes without saying that there are widespread advantages to making the change; however we will be making our submission based solely on its impact on sport.
4. Our experience as a sporting organisation tells us that moving the clocks will allow more people the chance to be more active throughout the whole year, not just the summer months. By aligning our waking hours to the UK's sunlit hours people will have a much greater opportunity to play sport and to be more physically active. Essentially the 'extra' hour would mean that sports facilities without floodlighting for example, could be utilised more effectively even in the winter months. Additionally activities which cannot be undertaken in the dark elsewhere, for example, on our coasts, lakes or on mountain and hillsides, would become more viable in the evening.
5. As sporting organisations we believe that the greater use of facilities throughout the year and the greater incentive to get active throughout the year is in itself a good thing, we also think it is worth pointing out the wider public policy benefits that an extra hour of sport and recreation can deliver for the Government. These include:
  - (i) Improved levels of physical and mental health. For example, people involved in sport or physical activity are up to 50% less likely to develop major chronic medical conditions
  - (ii) Improved social cohesion within communities
  - (iii) Improved skills. Sport increases educational attainment
  - (iv) Reductions in crime and anti-social behaviour. Sport and physical activity schemes involving 20,000 13-17 year olds have returned a 36% reduction in burglary and an 18% reduction in youth crime
  - (v) Increased levels of 'social capital' which helps to build strong communities. Sport and exercise are the single greatest contributors to social participation.
  - (vi) A significant contribution to the nation's economy.
6. We do not underestimate the challenge facing government as undoubtedly changing the clocks would be a bold move but we believe and as the points above illustrate, the benefits of the change far outweigh the risks. Giving people an extra hour of sunlight in their waking lives will allow them to lead more active lifestyles and that activity can make people happier and healthier.

23 March 2011

## Written evidence from the Institute of Directors Northern Ireland Division

The Institute of Directors Northern Ireland Division would add our concerns to those of Scotland in relation to the proposal to change daylight savings time by advancing time by one hour for all or part of the year.

The Private Members Bill appears to discount the impact that the proposed changes would have on northern parts of the UK including Northern Ireland, particularly the implications for road safety, energy consumption, rural dwellers and tourism along with the usual difficulties of commuting to work or school in the hours of darkness. The recent severe winter weather highlighted the difficulties for anyone travelling before sunrise and therefore before icy roads have had the chance to thaw.

Northern Ireland (at mid Ulster) is over 6½ degrees west of London and over 3 degrees north. Both of these variations work against us when we look at applying daylight saving in the winter. As the province is further north than London, our days are already shorter in winter. This means sunrise is very late in the winter, whereas London suffers a lot less from the time shift.

As the table below shows, on 1 January, for example, London's day is nearly 8 hours long whereas ours is 7 hours 20 minutes. Sunrise for London at that time of year is just after 8am and would move to shortly after 9am, while for Northern Ireland sunrise would move to a quarter to ten.

At the other end of the day, in London the actual time for sunset is only about 10 minutes later than Northern Ireland in mid winter. By mid March, of course, it evens out.

In summary, for much of the winter sunrise for Northern Ireland would be after 9.15am, and as late as 9.45am for several weeks, with a shorter day than London and no real advantage over London at the end of the day due to our shorter days in winter.

For anyone who has an early start to work or school, this would mean leaving home in the dark with sunrise after 8am between last week in October and the first week of March, ie over 4 months - compared to the current position where it is late November till early February or just over 2 months for the same situation.

We have taken mid-Ulster as a reference point; obviously the further north and west you go the worse the situation is. For example, on 1 January Derry would see sunrise at 9.53am with sunset at 5.10pm giving a day of only 6 hours 52 minutes.

Date	Sunrise current	Add 1 hour	Length of day/ hrs		Sunrise current	Add 1 hour	Length of day/ hrs
<b>London</b>				<b>Mid-Ulster</b>			
1 Dec	0744	0844			0825	0925	
21 Dec	0803	0903			0848	0948	
1 Jan	0806	0906			0849	0943	
1 Feb	0740	0840			0816	0916	
	<b>Sunset current</b>	<b>Add 1 hour</b>			<b>Sunset current</b>	<b>Add 1 hour</b>	
1 Dec	1555	1655	8h 11m		1605	1705	7h 40m
21 Dec	1554	1654	7h 51m		1602	1702	7h14m
1 Jan	1602	1702	7h 56m		1610	1710	7h 21m
1 Feb	1650	1750	9h 10m		1704	1804	7h 48m

A PSI report on the impact of changing the daylight hours during winter suggests that anyone working 9 to 5 hours would benefit from the extra daylight for leisure purposes at the end of the day, thus improving the health of the population. However this table shows that, in fact, such commuters would still be travelling home in the dark having also travelled to work in the dark.

In the mornings, even more commuters would be travelling (and often driving or crossing roads) in the dark at the busiest time for both workers and schoolchildren than is currently the case.

Northern Ireland's schoolchildren still participate to a great extent in organised competitive games. Under the new times, on Saturday mornings, schoolchildren would be travelling to sporting fixtures in darkness and indeed the start time of such fixtures might have to be moved to a later time taking up more of the family's weekend together time.

The suggestion that an extra hour of daylight between 4pm and 5pm is likely to affect the instances of crime seems rather spurious.

While the proposals would create useful extra lighter evenings at other times of the year, during winter the extra useful light hours at the weekends are outweighed by the extra days of dark mornings during the working/school week.

We would point out that unless the Republic of Ireland also adopts the daylight saving proposal we would have the nonsensical situation of having two time zones operating in the British Isles.

We would urge the abandonment of this Private Members Bill.

*24 March 2011*

## Written evidence from George Callen

- 1.0 I consider that the implementation of Daylight Saving Time would be of benefit to the population of Northern Ireland as it would have road safety advantages, being lighter during the evening rush-hour and this is unlikely to be offset by the slightly darker morning rush-hour.
- 2.0 There would be environmental benefits with a decrease in electricity usage.
- 3.0 There would be health benefits with greater use of outdoor sports facilities for a longer period of the year.
- 4.0 Generally lighter evenings allow better use of the day and permit gardening and other DIY activities after work for a longer period of the year.

I consider that the equivalent of Double Summer Time should be implemented so that an extra hour of daylight is obtained in the evening throughout the year.

*25 March 2011*

## Written evidence from the Royal Society for the Prevention of Accidents (RoSPA)

### 1. Background:

- 1.1. The Royal Society for the Prevention of Accidents (RoSPA) would like to start by thanking the members of the Northern Ireland Affairs Committee for giving it an opportunity to submit evidence in relation to the possible implications for Northern Ireland of the Daylight Saving Bill.
- 1.2. RoSPA is one of the world's leading safety organisations, which has now been in existence for 94 years.
- 1.3. The Society's objectives are to bring about change and help others, including its much-valued members, in order to prevent accidents on the road, at work, in the home and at leisure.
- 1.4. Its varied activities include campaigning, collecting data, carrying out research, developing policies, informing and educating, auditing and providing expert consultancy.
- 1.5. Despite its official status, RoSPA is a completely independent professional body and registered charity.
- 1.6. For decades, our organisation has been at the forefront of a campaign to give the United Kingdom an extra hour of evening daylight all year round.
- 1.7. The most recent research shows that a switch to Single/Double Summer Time (GMT+1 in winter / GMT+2 in summer) would save 80 lives and prevent more than 200 serious injuries on Britain's roads each year.<sup>1</sup>
- 1.8. In addition to the avoidance of grief and suffering, another positive consequence of fewer road accidents would be considerable annual savings to taxpayers.
- 1.9. The proposal has generated powerful momentum in recent months, winning the backing of tens of thousands of people and organisations through 10:10's Lighter Later coalition - of which RoSPA is a member.
- 1.10. The campaign is closer to succeeding now than at any time since 1970, thanks to Rebecca Harris MP's Private Members' Bill (the Daylight Saving Bill 2010-11) which passed its second reading in Parliament in December with a majority of 82.
- 1.11. If successful, the Bill will lead to the Government carrying out a cross-departmental analysis of the benefits of SDST - which in turn could trigger a three-year trial.
- 1.12. As far as we are aware, the last account of Northern Ireland's relationship to clock change was summed up in just a few paragraphs of the Home Office's official review of the 1968-71 British Standard Time trial - when clocks across the UK were kept on GMT+1 all year round for three years.<sup>2</sup>
- 1.13. Research shows that the experiment helped to prevent about 2,700 deaths and serious injuries for each year of the trial period.<sup>3</sup>

---

<sup>1</sup> *A Safer Way: Consultation on Making Britain's Roads the Safest in the World*, Department for Transport, April 2009

<sup>2</sup> Home Office, "Review of British Standard Time", Cmnd 4512: HMSO, 1970

<sup>3</sup> *A New Assessment of the Likely Effects on Road Accidents of Adopting SDST*, TRL 368, Broughton and Stone, 1998  
Possible implications for Northern Ireland of the Daylight Saving Bill 11 Possible implications for Northern Ireland of the Daylight Saving Bill

- 1.14. All Rebecca Harris's Bill is calling for is a review of the evidence - so people can see for themselves how positive an impact such a small adjustment would have on their lives today.
- 1.15. RoSPA estimates that about 5,000 deaths and 30,000 serious injuries have been caused needlessly in the UK since the experiment was concluded in 1971.
- 1.16. Now that the Government has decided not to reduce the drink-drive limit at this time, this proposal stands to save more lives than any other single road safety measure.
- 1.17. The Department for Transport estimated in 2009 that it would only cost £5million to implement SDST and would save more than £138million every year thereafter.<sup>4</sup>
- 1.18. To our knowledge, none of the many research papers or consultation documents published since 1971 considers the likely impact of SDST on Northern Ireland specifically.
- 1.19. This, in itself, provides a compelling case for a fresh investigation of the potential benefits for Northern Ireland.
- 1.20. This is an argument that was also made by Naomi Long MP (Alliance, Belfast East) during the second reading of Rebecca Harris's Bill on December 3, 2010, in the House of Commons.<sup>5</sup> Mrs Long expressed support for the Bill on the basis that it would bring about a long overdue evaluation of the likely impact on Northern Ireland.

## 2. The Home Office's Review of British Standard Time (1970):

- 2.1. This document, produced shortly before the 1968-71 experiment concluded, stated that although Northern Ireland had the power to pass separate legislation relating to time, and was not obliged to follow the decision of the United Kingdom Government, "their social and economic ties with Great Britain are so close it would clearly be impracticable for them to keep a different time system and the British Standard Time Act 1968 was therefore made applicable to them at their request".
- 2.2. The review also stated that enquiries made by the Government in Northern Ireland showed there was "a large measure of indifference" on this subject but that the arguments which had been put forward weighed fairly evenly for and against the retention of British Standard Time.
- 2.3. On the whole, the views held in Northern Ireland were similar to those in England, Wales and Scotland. The agricultural industry, for instance, was mainly opposed to the retention of British Standard Time while those concerned with education were mainly in favour of it. There was a division of opinion in industry and commerce, where the advantages of lighter afternoons and increased communications with the continent were weighed against "an alleged increase in accidents".
- 2.4. It summed up by saying:

There is a diversity of opinion in Northern Ireland and whatever decision is reached by the UK Government will be acceptable to a fairly large proportion of the inhabitants. There is, however, no indication that any of the effects of British Standard Time in Northern Ireland are sufficiently different from those in England, Wales and Scotland to affect the results of the inquiry as a whole.

## 3. Conclusion:

---

<sup>4</sup> *A Safer Way: Consultation on Making Britain's Roads the Safest in the World*, Department for Transport, April 2009

<sup>5</sup> See [www.publications.parliament.uk/pa/cm201011/cmhansrd/cm101203/debtext/101203-0001.htm](http://www.publications.parliament.uk/pa/cm201011/cmhansrd/cm101203/debtext/101203-0001.htm)

- 3.1. Traditional arguments deployed against SDST have much less force now; and those trades which traditionally started work early, like farmers and postal workers, have changed their working practices considerably.
- 3.2. Dr Mayer Hillman, of the Policy Studies Institute, reckons that with a rising proportion of the working population - now three-quarters of the total - in white collar occupations, and with typical office hours starting at 9am, the concomitant darker winter mornings would affect fewer people than in the past.<sup>6</sup>
- 3.3. This is borne out by the National Farmers Union Scotland's (NFUS) recent decision to support Rebecca Harris's Bill because it would provide an in-depth analysis of the likely impact of clock change.<sup>7</sup>
- 3.4. Explaining the NFUS's decision to change tack, Scott Walker, the union's policy director, said: "If people can put a good argument forward to us as to why there should be change, we're not going to be the ones who stand in the way of that change, if it's for everyone else's benefit[.] We still don't see any benefit to agriculture from such a proposed change, [b]ut we do recognise that there's been a lot of comment saying that there is a lot of wider society benefits to be gained."<sup>8</sup>
- 3.5. The only way to reach a conclusion about the effects of a move to SDST in the UK is to conduct an experiment similar to the one held during 1968-71. A trial implementation of SDST over at least two years, with modern evaluation methods and all data correctly and comprehensively recorded, would result in data that is unequivocal in terms of casualty savings and could cover much wider issues also. Such an experiment would give the people of Northern Ireland an opportunity to experience the change themselves and may be useful in helping to crystallise opinions.
- 3.6. Since the 1968-71 experiment, the road environment and people's travel habits have changed enormously. Society is more reliant on the car, fewer children walk or cycle to school, opportunities for leisure activities are significantly greater, people take holidays more frequently and overseas travel is much more common. The advancements in communication technology have opened up the opportunities for worldwide trade even further. Even weather conditions are changing as the effects of global warming are felt. None of the research conducted to date is able to address these factors successfully, which is why we continue to call for a thorough evaluation of the benefits to take place as soon as possible.

28 March 2011

---

<sup>6</sup>*Making the Most of Daylight Hours: The Implications for Scotland*, Policy Studies Institute, University of Westminster, Hillman, M. 2010

<sup>7</sup>*Clock change one step closer*, The Scottish Farmer, 24 November 2010

<sup>8</sup>*We're not against moving clocks forward an hour, say Scottish farmers*, The Guardian, 29 October 2010 (cited in [www.parliament.uk/briefingpapers/commons/lib/research/rp2010/RP10-078.pdf](http://www.parliament.uk/briefingpapers/commons/lib/research/rp2010/RP10-078.pdf))

## Written evidence from Lighter Later

1. We, Lighter Later, represent a nationwide [coalition of individuals and organisations](#) advocating a shift to Single/Double Summer Time (SDST) and supporting the related Daylight Saving Bill.
2. We currently have over 65 organisations and over 36,000 individuals signed up to our campaign.
3. There is a regrettable absence of data on the effects of SDST in Northern Ireland (NI) specifically. However, following consultation with experts in road safety including RoSPA and PACTS, sporting bodies such as the Sports and Recreation Alliance and tourism industry experts including BALPPA and the Tourism Alliance, we strongly believe that the expected benefits of SDST for Great Britain (GB) would be equally felt in NI. A list of these benefits, with the supportive research, can be found on our [website](#).
4. Most public opinion polls on SDST to date have only surveyed Great Britain. However, a [Money Saving Expert poll](#) encompassing GB and NI found that 66% of the 26,328 votes received were in favour of the change.
5. We feel that the only way to definitively establish the implications of SDST for Northern Ireland would be through an in-depth cost-benefit analysis of all the available evidence, as proposed in the Daylight Saving Bill.
6. We are aware that the Daylight Saving Bill has yet to generate the level of debate and discussion in NI that is ongoing in other areas of the UK. However, initial contacts with interested groups have revealed attitudes ranging from ambivalence to support for a move to SDST. Some of these groups may have submitted their own evidence to the committee. The Ulster Farmers Union noted that “*extra evening light could particularly benefit part-time farmers*”<sup>1</sup>. They also drew attention to the potential road safety gains. The Northern Ireland Sports Forum are very supportive of the bill and “*believe that one extra hour of sunlight will provide more opportunities for people to get involved in sport and recreation and to stay active throughout the whole year, not just in the summer months*”<sup>2</sup>.
7. Many of the bodies involved in our coalition represent NI as well as GB interests e.g. BIAZA, the Bed and Breakfast Association, the AA and Greenpeace. These organisations support the Daylight Saving Bill because they believe it will bring a wealth of benefits to the whole of the UK.
8. Clearly Northern Ireland is in a unique position in that it shares close links with both Britain and the ROI. Tentative enquiries suggest that the ROI would be keen to follow suit were the UK to make this change so as to avoid the difficulties associated with multiple time zones, especially for those living by the border. Please see the newspaper article printed in [the Irish times](#) on 26 March 2011.

---

<sup>1</sup> “The Ulster Farmers’ Union feel that extra evening light could particularly benefit part-time farmers. We would also like to highlight that due to varying finishing times, children are now more likely to walk home from school so extra evening light could help make their journey home safer.” Ruth Irvine, Chair of the UFU Rural Affairs Committee.

<sup>2</sup> “The Northern Ireland Sports Forum is greatly supportive of any initiative that will help people get active and help create a healthier nation. We believe that one extra hour of sunlight will provide more opportunities for people to get involved in sport and recreation and to stay active throughout the whole year, not just in the summer months”. Katie Nixon, Executive manager of the Northern Ireland Sports Forum

9. We appreciate the committee's acknowledgement of the increasing call for change. If you would like any further information, we would be more than happy to put members of the committee in touch with representatives of any of our member groups or discuss it with you ourselves.

*26 March 2011*

## **Written evidence from the Federation of Small Business**

The Federation of Small Businesses is Northern Ireland's largest business organisation with 8,000 members, drawn from across all sectors of industry. The Federation lobbies decision makers to create a better business environment.

The FSB has considered the possible implications for Northern Ireland of the Daylight Savings Bill and has concluded that it would take widespread consultation to reach a settled view from local members. It is not currently a priority issue for the many small businesses in Northern Ireland who are currently hampered by growing energy costs, lack of consumer confidence and no evidence of significant increase in sales for the foreseeable future.

The FSB, from a UK perspective, has expressed a neutral opinion. In Northern Ireland, the FSB concurs with this but would highlight the need for any consultation and subsequent decision to recognise that Northern Ireland has a land border with the Republic of Ireland. The operation of different time zones on either side of the border would cause significant business difficulties, so any variation from the status quo should be reached through consensus with the Republic of Ireland government.

*28 March 2011*

# Written evidence from Dr Mayer Hillman, Senior Fellow Emeritus, Policy Studies Institute, University of Westminster

## Introduction

1. *This Memorandum is focused on the implications for Northern Ireland of the adoption of the proposal to advance clocks by one hour. It seeks to provide an impartial assessment of whether the move would be of general benefit to the people of Northern Ireland. The areas of daily life that would be affected have been examined using a framework similar to that in the author's previous studies on the subject, especially the study covering Scotland, which was published in autumn 2010.*
2. The UK's adherence to GMT and BST has been the subject of popular and political debate for many decades. Recently, policy makers have been looking at this issue more closely to establish the impact of aligning our waking hours more closely with the available hours of daylight. The most widely-discussed proposal is to move to GMT+1 hour in the winter and GMT+2 in the summer, a system known as Single Double Summer Time, or SDST. The extra hour of natural light in the latter part of the day would be noticeable throughout the year whilst, for most of the population, the loss of the hour of daylight in the morning would only be felt in the winter months.
3. The problem stems from our distribution of waking hours. Most people are awake for five hours before midday, and 10 hours after. Mornings are spent entirely in daylight for much of the year, while a significant proportion of the afternoon and evening is spent in darkness.
4. Advocates of SDST claim that it would bring a host of benefits, especially in relation to leisure, health and tourism. Opponents of the change are concerned that the effects of losing an hour of daylight on winter mornings are too high a price to pay to gain the year-round benefits of the extra hour of light in the evenings.

## Road casualties and personal security

5. The frequency and severity of road accidents is closely related to lighting conditions. Crashes are more likely to occur in the evening 'peak', when driver attentiveness declines and darkness reduces visibility. The risk is particularly pronounced for vulnerable road users – children, elderly people, pedestrians and cyclists. During the 1968 – 71 trial of continuous British Summer Time in the UK, the afternoon peak occurred in daylight for a greater portion of the year, improving visibility and reducing the frequency of injuries.
6. The trial caused a slight increase in risk to children when traveling to school on dark winter mornings. However, this finding needs to be understood within a wider context. A child is three times more likely to be seriously or fatally injured on the road during the afternoon peak (3 – 6pm) as during the 7 – 10am morning peak (for adults, the afternoon peak is 50% more dangerous). 'Time budget' surveys show that for children, journeys to friends' houses or places of recreation, occupy nearly as much of their time as journeys to and from school. Far more time is spent travelling in the late afternoon and early evening than in the morning when children usually go directly to school. In fact, school journeys account for only about 1 in 10 child fatalities. Hence, despite the small winter morning increase, net child fatalities and serious injuries fell during the trial period.
7. Putting clocks forward by one hour would be likely to reduce road casualties in Northern Ireland. The 1998 Transport Research Laboratory study on the impact of the proposed

clock change on road casualties estimated that it would lead to an overall reduction of over 100 deaths and serious injuries and would save £138 million each year. Unfortunately, this study only covered England, Wales and Scotland, but Northern Ireland is likely to benefit pro rata in relation to its population accounting for 3% of that total. In 2009, the Public Accounts Committee confirmed the validity of this benefit.

8. The personal security benefits of adopting SDST are similarly notable. Criminal offences are more commonly committed after dark, and of these, very few occur in the hours shortly before dawn. In 1995 the Home Office calculated that an extra hour of evening daylight would lead to a 3% reduction in the number of crimes committed. Fear of crime is also higher after sunset, especially among the older generation. While such phenomena are difficult to quantify, Age UK and SAGA have both commented that longer waking daylight hours would contribute to an increased feeling of safety in elderly people.

### Leisure, sport and recreation

9. Most outdoor sports and other types of informal recreation are sensitive to daylight hours as well as to climate. Half of the ten most popular adult sports are daylight-dependent, with walking and gardening topping the list.
10. Comparing sunrise and sunset times with typical waking hours in Belfast and Londonderry clearly indicates that an additional hour of daylight in the evenings will result in more opportunities for daylight-dependent recreation.
11. A comparable study in Scotland established that adults living in Glasgow and working 9-to-5 would enjoy a yearly total of almost 300 additional hours of daylight under SDST, with more than half of these falling at the end of the working day. For children, there was a yearly increase of about 200 daylight hours *before they go to bed*, with roughly half of these falling on school days.
12. Sunset in Belfast and Londonderry occurs 9 and 11 minutes later respectively than in Glasgow. This means that their populations currently enjoy 1699 and 1714 hours of accessible daylight each year. Adopting SDST would add a further 300 hours (18%) to these totals.
13. Changing the clocks also has implications for temperature. Analysis of Meteorological Office data suggests that advancing the clocks would give us a better relationship with the warmer time of day in the late afternoon and evening. While there would be a very marginal decrease in the average morning temperature, the average late afternoon/early evening temperature is several degrees higher.

### Physical health and well-being

14. In common with the populations of other countries of the UK, Northern Ireland has a high level of chronic disease, and this poses a serious public health problem. A major contributing factor to this is physical inactivity. Just under a third of Northern Irish citizens die from circulatory diseases, associated for instance with obesity and hypertension. Medical authorities have calculated that adults should accumulate at least 30 minutes of moderate or more vigorous activity on most days of the week, and children at least one hour daily. Regrettably, however, regular exercise no longer features in most people's

everyday lives. Recent academic studies have predicted that, on current trends, up to half of the population will be clinically obese by 2050.

15. SDST would also allow more access to direct sunlight, with all its associated therapeutic benefits. Meteorological records show that between a third and a quarter of daylight hours experience direct sunlight. Thus, advancing the clocks would provide working adults with the additional 300 daylight hours noted earlier, meaning close to 100 hours of extra sunlight. Children would benefit from an additional 200 daylight hours and about 60 more hours of sunlight.
16. SDST would significantly increase opportunities for outdoor sports and recreational activity as well as potentially improving people's quality of life. It could also play a preventive health role in several medical conditions including anxiety and depression, vitamin D deficiency from low exposure to sunshine, and osteoporosis, a condition caused in part by lack of weightbearing exercise.
17. Moreover, as most children are prevented from going out after dark due to safety concerns, the extra hour of late afternoon and evening daylight would diminish parental anxiety, leading children to spending more time outside. This would likely also apply to older people who are commonly known to apply a self-imposed curfew at dusk. Lighter evenings could contribute to an increase in exercise and socialising, especially among the older generation.

#### Domestic tourism and leisure industries

18. Northern Ireland currently receives 3.3 million visitors and domestic tourists each year, contributing in the region of £1.5 billion to the economy. Relevant data from studies on the subject in the UK show that levels of tourism vary substantially during the year, owing to factors such as the state of the economy, school holidays and, most notably, daylight and temperature. Earlier studies on the subject in England and Scotland have shown that daylight actually plays a greater role than temperature in influencing visitor numbers. There are no obvious reasons why the general pattern of tourist activity in Northern Ireland would differ significantly in this respect. Under the present time system there are generally sufficient daylight hours for outdoor tourist activity in the height of summer. However, an additional hour of accessible daylight in the afternoon and evening could effectively extend the so-called 'shoulder months' during spring and autumn, allowing the industry to operate at near-peak capacity for a greater portion of the year. Lighter evenings would encourage more day trips and weekend breaks and accelerate the rapidly growing trend towards off-peak and short-break holidays. It is also likely to encourage people from elsewhere in the UK to take holidays in Northern Ireland rather than in more distant locations.
19. The later onset of dusk would also expand opportunities for spectator sports and therefore attract more revenue from the 'gate'. For example, matches could start at a more convenient hour on winter afternoons and still finish before dusk. Tourist destinations, meanwhile, could extend winter opening hours.
20. The clock change would significantly aid job creation in leisure and tourism. Growth in this sector is particularly valuable during a time of rising unemployment. The Northern Irish economy would also benefit from the additional tax revenues arising from increased earnings from the industry. For the UK as a whole, it was calculated that the clock change would boost tourism revenues to the tune of £3.5 billion and generate around 80,000 jobs. That would suggest that Northern Ireland could expect an increase in annual earnings of up to £100 million and the creation of over 2,000 new jobs.

## Farming, construction and other industries

21. Where services are provided over an 18-hour day, as with some transport sectors, or where shifts or rotas cover 24 hours, the clock change is unlikely to affect working practices. However, other jobs in Northern Irish service sector industries entail outdoor activity with little potential for working flexible hours. Some difficulty could arise for those employed in postal, milk and newspaper deliveries as darker winter mornings would make their working lives in these months less pleasant.
22. The darker mornings could also pose problems for agriculture and construction, where work may have to start early in the day. In the past, livestock farmers, particularly in northerly latitudes, raised concerns relating to getting animals to early markets and herding dairy cows in time for the first train to town. Due to huge changes in farming methods over recent decades involving mechanisation, artificial lighting and the intensification of the dairy industry, much of this is now obsolete. The NFU in Scotland and England are publicly in support of the current Daylight Saving Bill, and the Ulster Farmers Union have commented on the advantages of a switch to SDST.
23. Decades of modernisation have led to a substantial move away from jobs that would be affected by a later sunrise during the winter months. This is reflected in altered attitudes to the proposal to put clocks forward. It is recognised that SDST would enable construction workers an extra hour of daylight in the latter part of the day and likewise arable farmers ploughing and sowing in spring and harvesting in the autumn. Expanding the use of floodlighting is one obvious way of avoiding working in the dark for the additional hour on winter mornings. Starting work an hour later in the winter months (as practiced in the Scandinavian construction industry) is another.
24. Moreover, it should not be overlooked that people working in these types of industry would benefit even more than the general population from the extra hour of evening daylight for leisure throughout the year. It should be noted that working people would only be affected by the later sunrise on about 50 working days in winter as the two or so weeks of Christmas and New Year holidays coincide with the period of fewest daylight hours. It is also important to note that the sky lightens appreciably from about half an hour before sunrise, and daylight-dependent work outdoors is still possible for 20 to 30 minutes after sunset.

## Trade, travel and communications

25. The nations forming the UK are effectively a 'time island' at present. Trade, travel and communications with most countries in central and western Europe, stretching from Serbia and Albania up to Sweden and Norway and across to Spain, are made more difficult by the fact that their clocks operate on a Central European Time i.e. the GMT+1/GMT+2 system under consideration.
26. Travel and communications would be made more convenient as the proposed change would result in clocks being harmonised with nearly all these countries. Other than sales to the Republic of Ireland and the rest of the UK, over a third of Northern Ireland's manufacturing business – accounting for the majority of exports and currently worth over one billion pounds – is with European countries, the large majority of which are in this time zone.

27. The change would also increase the overlap of office hours between UK and Far Eastern markets – though reducing the overlap with North America. It is not surprising that the clock change has been widely supported by UK organisations working with colleagues, customers and clients in central and western Europe.

### Energy consumption

28. Recent evidence shows that advancing the clocks would lower electricity demand on every evening of the year due to a fall in the need for artificial light. This would outweigh the small rise during the mornings of the winter months. A recent detailed study of the likely effects showed that during the winter months lighter evenings would reduce demand by about 9%. It can be assumed that this benefit would apply similarly to Northern Ireland.

29. There are no separate figures for Northern Ireland on the reduction in greenhouse gases from power stations that would result from this lowered demand. However, it has been calculated that, across the UK as a whole, carbon dioxide emissions from power stations would drop by nearly half a million tonnes in winter alone.

### Public opinion

30. The prospects of reform have been improved by increased public support. The advantages are still as considerable, and the implementation costs just as low as when the Policy Studies Institute published its first report on the subject in 1988. The most dramatic change has been that of public opinion and the level of debate.

31. The potential shift to SDST has received huge amounts of media attention. The announcement of NFU Scotland's support for the current Daylight Saving Bill, combined with the proposed inclusion of the clock change in the government's tourism strategy, have pushed the issue back into the public eye. The Ulster Farmers Union has been quoted as saying that the "extra evening light could particularly benefit part-time farmers" but the issue remains less prominent in Northern Ireland than in the rest of the UK.

32. In 2005 an IPSOS MORI poll found that 61% of respondents in Greater London and Scotland approved of the proposal to advance the clocks. A 2006 Gallup poll in England, Scotland and Wales found 68% of participants approved of SDST, with this figure increasing to 73% once individuals were informed about road safety findings. Sadly, no current data exists for Northern Ireland specifically, but the aforementioned figures make it reasonable to predict similar support to that found in the rest of the UK.

### Conclusion

33. Adopting SDST would appear to be an effective, practical and remarkably straightforward way of better aligning our waking hours with the available daylight during the year. The evidence presented in this Memorandum indicates that advancing the clocks would bring Northern Ireland at least as great benefits as those predicted for the rest of the UK.

- The change would create far more opportunities for outdoor leisure in the evenings.
- It would be a boon for the tourist and leisure industries in terms of revenue and job creation.

- Later sunset throughout the year would give the great majority of the population more daylight hours to enjoy in the evenings.
  - Most parents would be able to extend the hours that they allow their children to be out and about and the lives of most elderly people fearful of going out after dark would be improved.
  - There would be a small reduction in road casualties and in lighting costs.
  - Most importantly, the great majority of the population could look forward to a marked improvement in their health and quality of life.
  - It has been seen that the grounds repeatedly cited in support of keeping the present time zone have lost much of their relevance since the last time the subject was seriously debated during the 1968–71 trial with the summertime clock retained for three winters.
34. These conclusions indicate that advancing clocks by one hour in summer and winter would bring Northern Ireland at least as great benefits as those predicted for the rest of the UK. This is of particular note in terms of leisure opportunities and the improvement in the health and quality of life of its population. These benefits appear to add up to an exceptionally strong case for the reform under consideration.
35. In the circumstances, it would be difficult to argue against the proposal contained in Rebecca Harris' Private Members Bill for the Government to conduct a cross-departmental analysis aimed at gathering evidence of the wide-ranging consequences. If, and only if, that revealed that the change was likely, on balance, to benefit the UK, a three-year trial would be undertaken before a final decision was reached to make it permanent.

## References

The statements in this Memorandum are largely based on the three Policy Studies Institute reports below, together with relevant data drawn from Northern Ireland sources.

Hillman, M., *Making the Most of Daylight Hours*, 1988.

Hillman, M., *Time for Change: setting clocks forward by one hour throughout the year – A new review of the evidence*, 1993.

Hillman, M., *Making the Most of Daylight Hours: the implications for Scotland*, 2010.

28 March 2011