INITIAL OPT	IONS APPRAI	ISAL													
			s The Do Nothing option represents the current situation where there is no airport at Manston, and n	The opening of the airport without any approved procedures or airspace no raises significant safety concerns relating to conflict with gliders operating in Class G airspace for some overland departure directions. In addition,	Rejected - this option has minimal noise impact and represents the shortest track miles for aircraft routing to th	Rejected - this option will have a slightly greater noise impact than the previous option. Very slightly longer than	Rejected - greater noise impact than the previous options due to the proximity to a populated area. Longer than the	Rejected - this option has minimal noise impact however is represents increased track miles by turning right after take	Rejected - this option will have a slightly greater noise impact than the previous option. Very slightly longer than	Rejected - greater noise impact than the previous options due to the proximity to a populated area. Longer than the	This option has minimal noise impact however, by turning right after take-off, this option will have greater track mile:	Rejected - this option will have a slightly greater noise impact than the previous option. Very slightly longer than	Rejected - greater noise impact than the previous options due to the proximity to a populated area. Longer than the	Minimum practicable noise impact for Rwy 10 SID. Option allows for direct track and continuous climb operations,	Minimum practicable noise impact. Option allows for continuous climb operations, minimising fuel burn and
			with approval of the DCO. Should the DCO not be	key outcomes of the Airspace Modernisation Strategy, specifically	would restrict climb profiles, increasing fuel burn and	Conflict with other airports arrival routes would restrict	with other airports arrival routes would restrict climb	may restrict continuous climb operations, resulting in	airports arrival routes may restrict continuous climb	arrival routes may restrict continuous climb operations,	have to include a 'not above' height restriction, but once	option will have greater track miles for some aircraft i.e.	will have greater track miles for aircraft routing to the	technical or operational mitigation required for the impact	emissions. Not the most direct track for aircraft routing south east, but procedure could be optimised to a more
			not able to proceed, this ACP will be withdrawn. An	reducing emissions and better noise management, are unlikely to be met. Reliance on tactical vectoring from ATC would have an impact on both	emissions.	climb profiles, increasing fuel burn and emissions.	profiles, increasing fuel burn and emissions.	increased fuel burn and emissions.	operations, resulting in increased fuel burn and emissions.	resulting in increased fuel burn and emissions.	able to perform continuous climb operations, this option	those routing to the south. Option will have to include a 'not above' height restriction, but once east of the arrival	south. Option will have to include a 'not above' height restriction, but once east of the arrival routes for other	of wind turbine generator's on PSR.	direct track therefore minimising track miles, fuel burn and emissions.
			assumption is made that the airport consent leads to an introduction of a level of air traffic into the environment for which we must identify at least	noise and emissions, specifically for overland routes.							represents the overall lowest noise impact for communities	 routes for other airports, aircraft will be able to perform continuous climb operations. Rejected in favour of lower noise impact of previous option. 	airports, aircraft will be able to perform continuous climb operations. Rejected in favour of lower noise impact of previous option.		
			minimal safe operational procedures, hence this option is rejected.									noise impact or previous opinion.	previous aprenti.		
Group	Impact	Level of Analysis	Do Nothing	SID Baseline (Do Minimum)	SID RWY 28 North (East) to North	SID RWY 28 North (Centre) to North	SID RWY 28 North (West) to North	SID RWY 28 North (East) to South	SID RWY 28 North (Centre) to South	SID RWY 28 North (West) to South	SID RWY 28 North (East) to East	SID RWY 28 North (Centre) to East	SID RWY 28 North (West) to East	SID RWY 10 North	SID RWY 10 South to East
		_			Option 4	Option 5	Option 6	Option 7	Option 8	Option 9	Option 10	Option 11	Option 12	Option 13	Option 14
Communities	Noise impact on health and quality of life	Initial Options Appraisal: Qualitative	There is no change to the noise impact on health and the quality of life with the Do Nothing option.	d in relation to noise management (below 7,000ft), this option provides little or no consistency of traffic distribution. As a result, aircraft routing will	e This route is over a rural area of Kent and avoids large built up areas and villages, although there are few small hamlet	This route is over a rural area of Kent and avoids large built	Although this route is over a rural area of Kent and avoids large built-up areas and villages, it is closer to the village of	This route is over a rural area of Kent and avoids large built fup areas and villages, although there are few small hamle	It- This route is over a rural area of Kent and avoids large built ts up areas and villages, although it does come close to the	Although this route is over a rural area of Kent and avoids large built-up areas and villages, it is closer to the village of	This route is over a rural area of Kent and avoids large built up areas and villages, although there are few small hamlet	This route is over a rural area of Kent and avoids large built- s up areas and villages, although it does come close to the	Although this route is over a rural area of Kent and avoids large built-up areas and villages. It is closer to the village of	Any departure from RWY 10 at Manston will have to fly ove the town of Ramsgate as aircraft will not have achieved the	r Any departure from RWY 10 at Manston will have to fly over the town of Ramsgate as aircraft will not have achieved the
				vary depending on the position of airway joining points, with an impact or both noise and number of people overflown below 7,000 ft. The likelihood	close to the route until the aircraft is over the sea. The remainder of this option tracks over the sea, resulting in	village of St Nicholas-At-Wade. The remainder of this optio tracks over the sea, resulting in minimal noise impact. Nois	n St Nicholas-At-Wade than the previous options, which will e result in overflight of the village. The remainder of this	close to the route until the aircraft is over the sea. The remainder of this option tracks over the sea, resulting in	village of St Nicholas-At-Wade. The remainder of this optio tracks over the sea, resulting in minimal noise impact. Nois	St Nicholas-At-Wade than the previous options, which will e result in overflight of the village. The remainder of this	close to the route until the aircraft is over the sea. The remainder of this option tracks over the sea, resulting in	village of St Nicholas-At-Wade. The remainder of this option tracks over the sea, resulting in minimal noise impact. Noise	St Nicholas-At-Wade than the previous options, which will result in overflight of the village. The remainder of this	minimum height required to initiate any turns. Noise impact will be the same as the Do Minimum option due to the	t minimum height required to initiate any turns. Noise impact will be the same as the Do Minimum option due to the
				of avoiding action in Class G airspace and delays in entry into Controlled Airspace and the airways structure are likely to have a further noise impact on local communities.	minimal noise impact. Noise impact likely to be less than the Do Minimum option due to the predictable routing, avoiding towns and villages.	impact likely to be less than the Do Minimum option due to the predictable routing, avoiding towns and villages.	option tracks over the sea, resulting in minimal noise impact. Noise impact likely to be less overall than the Do Minimum option due to the predictable routing, although	minimal noise impact. Noise impact likely to be less than the Do Minimum option due to the predictable routing, avoiding towns and villages.	impact likely to be less than the Do Minimum option due to the predictable routing, avoiding towns and villages.	option tracks over the sea, resulting in minimal noise impact. Noise impact likely to be less overall than the Do Minimum option due to the predictable routing, although	minimal noise impact. Noise impact likely to be less than the Do Minimum option due to the predictable routing, avoiding tower and villager.	impact likely to be less than the Do Minimum option due to the predictable routing, avoiding towns and villages.	option tracks over the sea, resulting in minimal noise impact. Noise impact likely to be less overall than the Do Minimum option due to the predictable routing, although	location and proximity of Ramsgate in relation to the runway.	location and proximity of Ramsgate in relation to the runway.
				The lack of predictable routing is likely to have an impact on tranquillity in	This route avoids the majority of areas that are particularly	sensitive to noise, although it does cross a narrow section	there is likely to be an increased impact on the village of St of Nicholas-At-Wade.	This route avoids the majority of areas that are particularly	y sensitive to noise, although it does cross a narrow section	there is likely to be an increased impact on the village of St f Nicholas-At-Wade.	This route avoids the majority of areas that are particularly	sensitive to noise, although it does cross a narrow section of	there is likely to be an increased impact on the village of St Nicholas-At-Wade.	This route avoids areas of tranquillity. In relation to Runwa 10 departures only, this represents no change from the Do	This route avoids areas of tranquillity. In relation to Runway 10 departures only, this represents no change from the Do
				the Kent Downs AONB from aircraft departing towards the south west. There is also likely to be an impact on locally identified areas of	sensitive to noise, although it does cross a narrow section of the Thanet Coast SSSI as it crosses the coast. This is likely to have less of an impact on tranquillity than the Do Minimum	of the Thanet Coast SSSI as it crosses the coast. This is likely to have less of an impact on tranquillity than the Do Minimun	This route avoids the majority of areas that are particularly	the Thanet Coast SSSI as it crosses the coast. This is likely	of the Thanet Coast SSSI as it crosses the coast. This is likely to have less of an impact on tranquillity than the Do Minimun	This route avoids the majority of areas that are particularly	sensitive to noise, although it does cross a narrow section of the Thanet Coast SSSI as it crosses the coast. This is likely to if have less of an impact on tranquillity than the Do Minimum	of the Thanet Coast SSSI as it crosses the coast. This is likely to have less of an impact on tranquillity than the Do Minimum	This route avoids the majority of areas that are particularly	Minimum option.	Minimum option.
				tranquillity, such as the Sandwich and Pegwell Bay National Nature Reserve.	option.	1	the Thanet Coast SSSI as it crosses the coast. This is likely thave less of an impact on tranquillity than the Do Minimum	of have less of an impact on tranquillity than the Do Minimu option.	it is unlikely that the use of multiple routes to spread the	the Thanet Coast SSSI as it crosses the coast. This is likely to have less of an impact on tranquillity than the Do Minimum	o option.	It is unlikely that the use of multiple routes to spread the	sensitive to noise, although it does cross a narrow section of the Thanet Coast SSSI as it crosses the coast. This is likely to have less of an impact on tranquillity than the Do Minimum		
						noise burden more equitably could be used. There is not enough lateral separation of the routes overland to provide	:		noise burden more equitably could be used. There is not enough lateral separation of the routes overland to provide	option.	It is unlikely that the use of multiple routes to spread the noise burden more equitably could be used. There is not	noise burden more equitably could be used. There is not enough lateral separation of the routes overland to provide	option.		
					enough lateral separation of the routes overland to provide overflight respite without potentially increasing the noise impact on the built-up areas.	overflight respite without potentially increasing the noise impact on the built-up areas.	It is unlikely that the use of multiple routes to spread the noise burden more equitably could be used. There is not enough lateral separation of the routes overland to provide	overflight respite without potentially increasing the noise	e overflight respite without potentially increasing the noise impact on the built-up areas.	It is unlikely that the use of multiple routes to spread the noise burden more equitably could be used. There is not enough lateral separation of the routes overland to provide	enough lateral separation of the routes overland to provide overflight respite without potentially increasing the noise impact on the huilt-up areas	overflight respite without potentially increasing the noise impact on the built-up areas.	It is unlikely that the use of multiple routes to spread the noise burden more equitably could be used. There is not enough lateral separation of the routes overland to provide		
					,		overflight respite without potentially increasing the noise impact on the built-up areas.			overflight respite without potentially increasing the noise impact on the built-up areas.	,		overflight respite without potentially increasing the noise impact on the built-up areas.		
Communities	Air Quality	Initial Options Appraisal:	There is no change to the impact on Local Air Quality with the Do Nothing option.	Local Air Quality is likely to be affected by aircraft within 3 nautical miles of the airfield below 1,000 ft. The positions of aircraft below 1,000 ft are	Local Air Quality is likely to be affected by aircraft within 3	Local Air Quality is likely to be affected by aircraft within 3	Local Air Quality is likely to be affected by aircraft within 3	Local Air Quality is likely to be affected by aircraft within a nautical miles of the airfield below 1,000 ft. The positions	Local Air Quality is likely to be affected by aircraft within 3	Local Air Quality is likely to be affected by aircraft within 3	Local Air Quality is likely to be affected by aircraft within 3	Local Air Quality is likely to be affected by aircraft within 3		Local Air Quality is likely to be affected by departing aircraft until above 1,000 ft. Aircraft flying this departure would be	
		Quantative	want the 50 Hothing option.	likely to be very similar (immediately after take-off, or on final approach) to the assessment conducted for the DCO and hence there should be no	of aircraft below 1,000 ft are likely to be very similar to the Do Minimum option. Aircraft departing from Runway 28 wi	of aircraft below 1,000 ft are likely to be very similar to the III Do Minimum option. Aircraft departing from Runway 28	of aircraft below 1,000 ft are likely to be very similar to the Do Minimum option. Aircraft departing from Runway 28	of aircraft below 1,000 ft are likely to be very similar to th Do Minimum option. Aircraft departing from Runway 28	e of aircraft below 1,000 ft are likely to be very similar to the Do Minimum option. Aircraft departing from Runway 28	of aircraft below 1,000 ft are likely to be very similar to the Do Minimum option. Aircraft departing from Runway 28	of aircraft below 1,000 ft are likely to be very similar to the Do Minimum option. Aircraft departing from Runway 28	of aircraft below 1,000 ft are likely to be very similar to the Do Minimum option. Aircraft departing from Runway 28	of aircraft below 1,000 ft are likely to be very similar to the Do Minimum option. Aircraft departing from Runway 28	between 250 ft and 1,000 ft while passing over Ramsgate. As the aircraft has not reached a sufficient height to enable	between 250 ft and 1,000 ft while passing over Ramsgate. As the aircraft has not reached a sufficient height to enable
				significant impact on air quality around the airport and specifically in the Thanet Urban AQMA as a result of implementing the Do Minimum option.	a small localised negative impact on Local Air Quality. Ther	re have a small localised negative impact on Local Air Quality	have a small localised negative impact on Local Air Quality,	have a small localised negative impact on Local Air Quality	will be more concentrated on this single route, which may have a small localised negative impact on Local Air Quality, particularly in the vicinity of St Nicholas-At-Wade. There	have a small localised negative impact on Local Air Quality,	have a small localised negative impact on Local Air Quality.	have a small localised negative impact on Local Air Quality,	have a small localised negative impact on Local Air Quality,	change to the Do Minimum option due to the location and	change to the Do Minimum option due to the location and
				The DCO Environmental Assessment concluded that there would be no significant impact on biodiversity as a result of the redevelopment of	implementing this option.		f will be no change in the Thanet Urban AQMA as a result of implementing this option.	f result of implementing this option.		will be no change in the Thanet Urban AQMA as a result of implementing this option.			will be no change in the Thanet Urban AQMA as a result of implementing this option.		no change in the Thanet Urban AQMA as a result of implementing this option.
				Manston Airport, despite the significant amount of ground-based infrastructure work that would be undertaken. Implementing the Do	This option is not expected to result in any changes to biodiversity given that the implementation will not require	This option is not expected to result in any changes to	This option is not expected to result in any changes to	This option is not expected to result in any changes to biodiversity given that the implementation will not require	This option is not expected to result in any changes to	This option is not expected to result in any changes to	This option is not expected to result in any changes to biodiversity given that the implementation will not require	This option is not expected to result in any changes to	This option is not expected to result in any changes to	This option is not expected to result in any changes to	This option is not expected to result in any changes to
				Minimum option can therefore be assumed to have no significant impact on biodiversity.	any ground works to support implementation.	biodiversity given that the implementation will not require any ground works to support implementation.	biodiversity given that the implementation will not require any ground works to support implementation.	any ground works to support implementation.	biodiversity given that the implementation will not require any ground works to support implementation.	biodiversity given that the implementation will not require any ground works to support implementation.	way ground works to support implementation.	biodiversity given that the implementation will not require any ground works to support implementation.	biodiversity given that the implementation will not require any ground works to support implementation.	biodiversity given that the implementation will not require any ground works to support implementation.	biodiversity given that the implementation will not require any ground works to support implementation.
Wider Society	Greenhouse Gas Impac	t Initial Options Appraisal: Qualitative	There is no change to the greenhouse gas impact with the Do Nothing option.	th The lack of approved procedures do not support optimum aircraft performance and are therefore predicted to have an environmental	This option represents the minimal track miles for aircraft departing to the north. However, due to the integration	This option is slightly longer (0.6 nautical mile) than the previous option but still represents the minimal track miles	This option is slightly longer (1.2 nautical miles) than the previous option but still represents the minimal track miles		To ensure deconfliction from traffic descending on the Southend Airport arrival route, this procedure will have to	To ensure deconfliction from traffic descending on the Southend Airport arrival route, this procedure will have to	To ensure deconfliction from traffic descending on the Southend Airport arrival route, this procedure will have to	To ensure deconfliction from traffic descending on the Southend Airport arrival route, this procedure will have to	To ensure deconfliction from traffic descending on the Southend Airport arrival route, this procedure will have to	This option allows for continuous climb operations and minimises the number of track miles flown. Improved climb	
				impact in terms of emissions. Aircraft are unlikely to be able to perform continuous climb operations and aircraft are likely to be restricted in	required with arrivals into Southend Airport, aircraft would not be able to perform continuous climb operations and	for aircraft departing to the north. However, due to the integration required with arrivals into Southend Airport,	for aircraft departing to the north. However, due to the integration required with arrivals into Southend Airport,	include a 'not above' height restriction until clear to the ea of the arrival's procedure. Aircraft may still be able to	est include a 'not above' height restriction until clear to the ea of the arrival's procedure. Aircraft may still be able to	at include a 'not above' height restriction until clear to the ear of the arrival's procedure. Aircraft may still be able to	st include a 'not above' height restriction until clear to the ea of the arrival's procedure. Aircraft may still be able to	at include a 'not above' height restriction until clear to the eas of the arrival's procedure. Aircraft may still be able to	include a 'not above' height restriction until clear to the eas of the arrival's procedure. Aircraft may still be able to		track miles flow. Improved climb profile should result in less impact than the Do Minimum option.
				height waiting for clearance to join the airways. This will mean higher engine power settings and greater track miles, impacting fuel burn and emissions. Whilst awaiting airways joining clearance, there is also the	would be held at 5,000 ft or less for longer. Likely to have similar impact to Do Minimum option due to inefficient climb profiles although may allow more direct routing.	aircraft would not be able to perform continuous climb operations and would be held at 5,000 ft or less for longer Likely to have similar impact to Do Minimum option due to	aircraft would not be able to perform continuous climb operations and would be held at 5,000 ft or less for longer. Likely to have similar impact to Do Minimum option due to	perform a Continuous Climb departure, depending on the climb gradient that can be achieved, but it cannot be guaranteed. By turning right after take-off, aircraft routin	perform a Continuous Climb departure, depending on the climb gradient that can be achieved, but it cannot be g guaranteed. By turning right after take-off, aircraft routing	climb gradient that can be achieved, but it cannot be	perform a Continuous Climb departure, depending on the climb gradient that can be achieved, but it cannot be guaranteed. By turning right after take-off and extending t	perform a Continuous Climb departure, depending on the climb gradient that can be achieved, but it cannot be guaranteed. By turning right after take-off and extending to	perform a Continuous Climb departure, depending on the climb gradient that can be achieved, but it cannot be guaranteed. By turning right after take-off and extending to		
				increased likelihood of avoiding action in relation to other airspace users operating in Class G airspace.			inefficient climb profiles although may allow more direct routing.	to the south east or south will have more track miles to fly Likely to have a greater impact than the Do Minimum opti	to the south east or south will have more track miles to fly. This option is slightly longer (0.6 nautical mile) than the	to the south east or south will have more track miles to fly. This option is slightly longer (1.2 nautical miles) than the	the east, aircraft will have more track miles to fly but once separated to the east of the arrival routes, aircraft will be	the east, aircraft will have more track miles to fly but once separated to the east of the arrival routes, aircraft will be	the east, aircraft will have more track miles to fly but once separated to the east of the arrival routes, aircraft will be		
								due to increased track miles and inefficient climb profiles.	previous option. Likely to have a greater impact than the D Minimum option due to increased track miles and inefficient climb profiles.	 previous option. Likely to have a greater impact than the D Minimum option due to increased track miles and inefficient climb profiles. 	altitude sooner. Likely to require more track miles than the	able to perform a continuous climb to reach cruising altitude sooner. This option is slightly longer (0.6 nautical mile) than the previous option. Likely to require more track	able to perform a continuous climb to reach cruising altitude sooner. This option is slightly longer (1.2 nautical		
									mendent dinto promes.	mencen, cima prones.	profiles should result in less impact overall.		miles than the Do Minimum option for some routes but improved climb profiles should result in less impact overall.		
Wider Society	Capacity and resilience	Initial Options Appraisal:	The De Nothing cetter will have no impact on the	This option is an ineffective way of managing airspace. Manston Airport	This antion does support the management of canacity and	This action does support the management of capacity and	This pation does support the management of specific and	This pation does runnout the management of capacity and	Thir nation door runnout the management of canacity and	This postion does suppose the management of capacity and	This ontion does support the management of capacity and	This potion does support the management of capacity and	This option does support the management of canacity and	This antion does support the effective management of	This option does support the effective management of
Witer Society	capacity and realistic	Qualitative	capacity and resilience of the overall national airspac infrastructure.	ce would not meet the airspace modernisation priorities, including the coordination with other airspace users as part of the FASI-S programme.	resilience and was developed in coordination with NATS as part of FASI-S in accordance with the UK Airspace	resilience and was developed in coordination with NATS as part of FASI-S in accordance with the UK Airspace	resilience and was developed in coordination with NATS as part of FASI-S in accordance with the UK Airspace	resilience and was developed in coordination with NATS at part of FASI-S in accordance with the UK Airspace	resilience and was developed in coordination with NATS as part of FASI-S in accordance with the UK Airspace	resilience and was developed in coordination with NATS as part of FASI-S in accordance with the UK Airspace	resilience and was developed in coordination with NATS as part of FASI-S in accordance with the UK Airspace	resilience and was developed in coordination with NATS as part of FASI-S in accordance with the UK Airspace	resilience and was developed in coordination with NATS as part of FASI-S in accordance with the UK Airspace	capacity and resilience and was developed in coordination with NATS as part of FASI-S in accordance with the UK	capacity and resilience and was developed in coordination with NATS as part of FASI-S in accordance with the UK
				In poor weather conditions, there is a higher likelihood of aircraft having to carry out multiple approaches or divert to other airports with suitable		Modernisation Strategy. However, traffic would be capped at 5,000 ft until clear of Southend Airport arrival routes.	Modernisation Strategy. However, traffic would be capped at 5,000 ft until clear of Southend Airport arrival routes.	Modernisation Strategy. However, traffic would be subject to height restrictions until clear of Southend Airport arriva	Modernisation Strategy. However, traffic would be subject to height restrictions until clear of Southend Airport arrival	Modernisation Strategy. However, traffic would be subject to height restrictions until clear of Southend Airport arrival	Modernisation Strategy. However, traffic would be subject to height restrictions until clear of Southend Airport arrival	Modernisation Strategy. However, traffic would be subject to height restrictions until clear of Southend Airport arrival	Modernisation Strategy. However, traffic would be subject to height restrictions until clear of Southend Airport arrival	track, aircraft are able to avoid arrival routes to London	Airspace Modernisation Strategy. Due to the more easterly track, aircraft are able to avoid arrival routes to London
				approach aids, which will have a significant impact on the resilience of the airport.				routes.	routes.	routes.	routes.	routes.	routes.	airports, improving airspace efficiency.	airports, improving airspace efficiency. This route would represent the most direct route for aircraft transiting to the near continent across the London FIR boundary.
															,
General Aviation	Access	Initial Options Appraisal: Qualitative	The Do Nothing option will have no impact on the access to airspace for GA aircraft.	No changes are proposed to the parameters of the current airspace structure around Manston Airport and therefore no change to airspace	This route would have minimal impact on other airspace users. No change to airspace access is predicted.	This route would have minimal impact on other airspace users. No change to airspace access is predicted.	This route would have minimal impact on other airspace users. No change to airspace access is predicted.	This route would have minimal impact on other airspace users. No change to airspace access is predicted.	This route would have minimal impact on other airspace users. No change to airspace access is predicted.	This route would have minimal impact on other airspace users. No change to airspace access is predicted.	This route would have minimal impact on other airspace users. No change to airspace access is predicted.	This route would have minimal impact on other airspace users. No change to airspace access is predicted.	This route would have minimal impact on other airspace users. No change to airspace access is predicted.	This route would have minimal impact on other airspace users. No change to airspace access is predicted.	This route would have minimal impact on other airspace users. No change to airspace access is predicted.
				access is predicted.											
General Aviation /	Economic Impact from	Initial Options Appraisal:	The Do Nothing option will not allow an increase in a	ir The reopening of Manston Airport is expected to realise a positive	The introduction of PRN procedures coordinated with NATS	The introduction of PRN procedures coordinated with NAT	The introduction of PRN procedures coordinated with NAT	The introduction of PRN procedures coordinated with NAI	'S The introduction of PBN procedures coordinated with NAT:	The introduction of PRN procedures coordinated with NATY	The introduction of PRN procedures coordinated with NAT	The introduction of PRN procedures coordinated with NATS	The introduction of PRN procedures coordinated with NATS	The introduction of PRN procedures coordinated with NATS	The introduction of PRN procedures coordinated with NATS
commercial airlines	increased effective capacity	Qualitative	transport movements so will have no economic impact .	economic impact with an increase in both air transport and GA movements from the current position of zero movements. Any impact as a	and other FASI-S sponsors will contribute to the delivery of associated benefits including increased effective capacity	and other FASI-S sponsors will contribute to the delivery of associated benefits including increased effective capacity	and other FASI-S sponsors will contribute to the delivery of associated benefits including increased effective capacity	and other FASI-S sponsors will contribute to the delivery of associated benefits including increased effective capacity	 f and other FASI-S sponsors will contribute to the delivery of associated benefits including increased effective capacity 	and other FASI-S sponsors will contribute to the delivery of associated benefits including increased effective capacity	and other FASI-S sponsors will contribute to the delivery of associated benefits including increased effective capacity	and other FASI-S sponsors will contribute to the delivery of associated benefits including increased effective capacity	and other FASI-S sponsors will contribute to the delivery of associated benefits including increased effective capacity	and other FASI-S sponsors will contribute to the delivery of associated benefits including increased effective capacity	associated benefits including increased effective capacity
				result of operating the airport without approved procedures is likely to be a negative impact due to the increased likelihood of aircraft having to divert due to poor weather.	which is predicted to have direct and indirect economic benefits associated with an increase in both air transport and GA movements.	which is predicted to have direct and indirect economic benefits associated with an increase in both air transport and GA movements.	which is predicted to have direct and indirect economic benefits associated with an increase in both air transport and GA movements.	which is predicted to have direct and indirect economic benefits associated with an increase in both air transport and GA movements.	which is predicted to have direct and indirect economic benefits associated with an increase in both air transport and GA movements.	which is predicted to have direct and indirect economic benefits associated with an increase in both air transport and GA movements.	which is predicted to have direct and indirect economic benefits associated with an increase in both air transport and GA movements.	which is predicted to have direct and indirect economic benefits associated with an increase in both air transport and GA movements.	which is predicted to have direct and indirect economic benefits associated with an increase in both air transport and GA movements.	which is predicted to have direct and indirect economic benefits associated with an increase in both air transport and GA movements.	which is predicted to have direct and indirect economic benefits associated with an increase in both air transport and GA movements.
				divertible to poor weather.	and da movements.	and GA movements.	and dia movements.	and dix movements.	allo da illoverierio.	and distributions.	and da movements.	and de movements.	and da movements.	and da movements.	and dia movements.
General Aviation /	Fuel burn	Initial Options Appraisal:	There is no change to fuel burn with the Do Nothing	There will be an impact on fuel burn due to: Potential extended track miles in level flight due to clearance delays and	This option will initially have a limited fuel burn impact until	If This option will initially have a limited fuel burn impact un	Il This option will initially have a limited fuel burn impact unt the aircraft reaches 5,000 ft, where it would be held until	To ensure aircraft are deconflicted with Southend airport	To ensure aircraft are deconflicted with Southend airport arrivals, aircraft flying this route would be subject to a	To ensure aircraft are deconflicted with Southend airport arrivals, aircraft flying this route would be subject to a	To ensure aircraft are deconflicted with Southend airport arrivals, aircraft flying this route would be subject to a	To ensure aircraft are deconflicted with Southend airport arrivals, aircraft flying this route would be subject to a	To ensure aircraft are deconflicted with Southend airport arrivals, aircraft flying this route would be subject to a	Due the easterly track of this option, conflicts with arrival aircraft into London airports can be avoided, enabling	This option does not impact on arrivals into London airports as it tracks to the South East, therefore, continuous climb
commercial arrines		Quantauve	opaon.	height restrictions and avoiding action in Class G airspace; Unpredictable routes due to variation in airways joining positions and	clear of the Southend arrival routes, therefore, continuous climb operations are not possible. Likely to have similar	clear of the Southend arrival routes, therefore, continuous climb operations are not possible. Likely to have similar	clear of the Southend arrival routes, therefore, continuous climb operations are not possible. Likely to have similar	height restriction, but may still be able to perform continuous climb operations, depending on the achieved	height restriction, but may still be able to perform continuous climb operations, depending on the achieved	height restriction, but may still be able to perform continuous climb operations, depending on the achieved	height restriction, but may still be able to perform continuous climb operations, depending on the achieved	height restriction, but may still be able to perform continuous climb operations, depending on the achieved	height restriction, but may still be able to perform continuous climb operations, depending on the achieved	continuous climb operations and optimum climb gradients, reducing fuel burn, especially at lower altitudes. This	operations and an optimal climb gradient can be realised. However, given the proximity to the FIR boundary, the later
				tactical ATC intervention; and The opportunity to optimise aircraft performance through continuous	impact to Do Minimum option due to inefficient climb profiles although may allow more direct routing.	impact to Do Minimum option due to inefficient climb profiles although may allow more direct routing.	impact to Do Minimum option due to inefficient climb profiles although may allow more direct routing.	turning right after take-off, aircraft routing to the south an	climb gradient. This however, cannot be guaranteed. By turning right after take-off, aircraft routing to the south an ag south east will fly a greater number of track miles, incurrin	turning right after take-off, aircraft routing to the south and	climb gradient. This however, cannot be guaranteed. By turning right after take-off, aircraft routing to the south an	turning right after take-off, aircraft routing to the south and	climb gradient. This however, cannot be guaranteed. By turning right after take-off, aircraft routing to the south and	procedure also minimises the number of track miles flown. Improved climb profile should result in less impact than the	
				climb operations unlikely to be achieved.				increased fuel burn. Likely to have a greater impact than ti	he increased fuel burn. Likely to have a greater impact than the Do Minimum option due to increased track miles and	e increased fuel burn. Likely to have a greater impact than th	e increased fuel burn. Likely to require more track miles than	increased fuel burn. Likely to require more track miles than	increased fuel burn. Likely to require more track miles than the Do Minimum option for some routes but improved	д Бо мининан ороск.	depending on the traffic situation in the adjacent FIRs. Improved climb profile should result in less impact than the Do Minimum option.
								inefficient climb profiles.	inefficient climb profiles.	inefficient climb profiles.	climb profiles should result in less impact overall.	climb profiles should result in less impact overall.	climb profiles should result in less impact overall.		
Commercial airlines	Training costs	Initial Options Associati	There will be no training costs accordated with a	There will be no additional training costs associated with implementing	There will be no additional training costs assure ""	There will be no additional training costs required for	There will be no additional training costs required for	There will be no additional training costs required for	There will be no additional training costs required for	There will be no additional training costs required for	There will be no additional training costs required for	There will be no additional training costs required for	There will be no additional training costs required for	There will be no additional training costs required for	There will be no additional training costs required for
Commercial airlines		Initial Options Appraisal: Qualitative	There will be no training costs associated with the Do Nothing option.	the Do Minimum option over and above the training costs associated with the reopening Manston Airport as a NSIP. No additional training would be	commercial operators flying PBN routes or procedures.	There will be no additional training costs required for commercial operators flying PBN routes or procedures.	There will be no additional training costs required for commercial operators flying PBN routes or procedures.	There will be no additional training costs required for commercial operators flying PBN routes or procedures.	There will be no additional training costs required for commercial operators flying PBN routes or procedures.	There will be no additional training costs required for commercial operators flying PBN routes or procedures.	There will be no additional training costs required for commercial operators flying PBN routes or procedures.	There will be no additional training costs required for commercial operators flying PBN routes or procedures.	There will be no additional training costs required for commercial operators flying PBN routes or procedures.	There will be no additional training costs required for commercial operators flying PBN routes or procedures.	There will be no additional training costs required for commercial operators flying PBN routes or procedures.
				required by commercial airlines or GA as a result of reopening the airport without any approved procedures.											
Comm.	Other and	telled Or	The second by the second secon	The lands of annual along	The contability of co	The contribution of a	The modulation of an	The modelables of a	The modulation of a	The analysis of an	The modulable of an	The collability of co.	The analysis of an	The conduction of an	The multiplifier of an
Commercial airlines	uner costs	Initial Options Appraisal: Qualitative	There will be no additional costs associated with the Do Nothing option.	The lack of approved departure procedures should not result in any other additional costs for commercial airlines.	fewer minima related diversions and associated costs. Other costs to operators may include updates to aircraft	The availability of approved procedures should lead to fewer minima related diversions and associated costs. Other costs to operators may include updates to aircraft		The availability of approved procedures should lead to fewer minima related diversions and associated costs. Other costs to operators may include updates to aircraft	The availability of approved procedures should lead to fewer minima related diversions and associated costs. Other costs to operators may include updates to aircraft		The availability of approved procedures should lead to fewer minima related diversions and associated costs. Other costs to operators may include updates to aircraft	The availability of approved procedures should lead to fewer minima related diversions and associated costs. Other costs to operators may include updates to aircraft	The availability of approved procedures should lead to fewer minima related diversions and associated costs. Other costs to operators may include updates to aircraft	The availability of approved procedures should lead to fewer minima related diversions and associated costs. Other costs to operators may include updates to aircraft	The availability of approved procedures should lead to fewer minima related diversions and associated costs. Other costs to operators may include updates to aircraft
					Flight Management Systems (FMS) and navigation databases. Any additional costs are likely to be less than	Flight Management Systems (FMS) and navigation databases. Any additional costs are likely to be less than	Flight Management Systems (FMS) and navigation databases. Any additional costs are likely to be less than	Flight Management Systems (FMS) and navigation databases. Any additional costs are likely to be less than	Flight Management Systems (FMS) and navigation databases. Any additional costs are likely to be less than	Flight Management Systems (FMS) and navigation databases. Any additional costs are likely to be less than	Flight Management Systems (FMS) and navigation databases. Any additional costs are likely to be less than	Flight Management Systems (FMS) and navigation databases. Any additional costs are likely to be less than	Flight Management Systems (FMS) and navigation databases. Any additional costs are likely to be less than	Flight Management Systems (FMS) and navigation databases. Any additional costs are likely to be less than	Flight Management Systems (FMS) and navigation databases. Any additional costs are likely to be less than
					those associated with the Do Minimum option.	those associated with the Do Minimum option.	those associated with the Do Minimum option.	those associated with the Do Minimum option.	those associated with the Do Minimum option.	those associated with the Do Minimum option.	those associated with the Do Minimum option.	those associated with the Do Minimum option.	those associated with the Do Minimum option.	those associated with the Do Minimum option.	those associated with the Do Minimum option.
Airport / Air	Infrastructure costs	Initial Options Appraisal:	There will be no additional infrastructure costs	There are no additional infrastructure costs associated with the Do	There will be no additional infrastructure costs associated	There will be no additional infrastructure costs associated	There will be no additional infrastructure costs associated	There will be no additional infrastructure costs associated	There will be no additional infrastructure costs associated	There will be no additional infrastructure costs associated	There will be no additional infrastructure costs associated	There will be no additional infrastructure costs associated	There will be no additional infrastructure costs associated	There will be no additional infrastructure costs associated	There will be no additional infrastructure costs associated
navigation service provider		Qualitative	associated with the Do Nothing option.	Minimum option as a direct result of this ACP over and above the costs of reopening Manston Airport as a NSIP.	with the introduction of PBN routes or procedures. No change from the Do Minimum option.	with the introduction of PBN routes or procedures. No change from the Do Minimum option.	with the introduction of PBN routes or procedures. No change from the Do Minimum option.	with the introduction of PBN routes or procedures. No change from the Do Minimum option.	with the introduction of PBN routes or procedures. No change from the Do Minimum option.	with the introduction of PBN routes or procedures. No change from the Do Minimum option.	with the introduction of PBN routes or procedures. No change from the Do Minimum option.	with the introduction of PBN routes or procedures. No change from the Do Minimum option.	with the introduction of PBN routes or procedures. No change from the Do Minimum option.	with the introduction of PBN routes or procedures. No change from the Do Minimum option.	with the introduction of PBN routes or procedures. No change from the Do Minimum option.
Airport / Air	Operational costs	Initial Options Appraisal:		There will be no additional routine operational costs associated with	The operational costs associated with implementing PBN	The operational costs associated with implementing PBN	The operational costs associated with implementing PBN	The operational costs associated with implementing PBN	The operational costs associated with implementing PBN	The operational costs associated with implementing PBN	The operational costs associated with implementing PBN				The operational costs associated with implementing PBN
navigation service provider		qualitative	Nothing option.	implementing the Do Minimum option over and above the operational costs of reopening Manston Airport as a NSIP.	procedures relate to IFP design, validation (ground and airborne), safety assessment, airspace change and consultation, certification and publication. Once	procedures relate to IFP design, validation (ground and airborne), safety assessment, airspace change and consultation, certification and publication. Once	procedures relate to IFP design, validation (ground and airborne), safety assessment, airspace change and consultation, certification and publication. Once	procedures relate to IFP design, validation (ground and airborne), safety assessment, airspace change and consultation, certification and publication. Once	procedures relate to IFP design, validation (ground and airborne), safety assessment, airspace change and consultation, certification and publication. Once	procedures relate to IFP design, validation (ground and airborne), safety assessment, airspace change and consultation, certification and publication. Once	procedures relate to IFP design, validation (ground and airborne), safety assessment, airspace change and consultation, certification and publication. Once	procedures relate to IFP design, validation (ground and airborne), safety assessment, airspace change and consultation, certification and publication. Once	procedures relate to IFP design, validation (ground and airborne), safety assessment, airspace change and consultation, certification and publication. Once	procedures relate to IFP design, validation (ground and airborne), safety assessment, airspace change and consultation, certification and publication. Once	procedures relate to IFP design, validation (ground and airborne), safety assessment, airspace change and consultation, certification and publication. Once
					implemented, the costs of ownership of PBN procedures is very low, requiring maintenance of the procedure on a five	implemented, the costs of ownership of PBN procedures is very low, requiring maintenance of the procedure on a five	implemented, the costs of ownership of PBN procedures is very low, requiring maintenance of the procedure on a five	implemented, the costs of ownership of PBN procedures is very low, requiring maintenance of the procedure on a flw	implemented, the costs of ownership of PBN procedures is very low, requiring maintenance of the procedure on a five	implemented, the costs of ownership of PBN procedures is very low, requiring maintenance of the procedure on a five	implemented, the costs of ownership of PBN procedures is very low, requiring maintenance of the procedure on a five	implemented, the costs of ownership of PBN procedures is very low, requiring maintenance of the procedure on a five	implemented, the costs of ownership of PBN procedures is very low, requiring maintenance of the procedure on a five	implemented, the costs of ownership of PBN procedures is very low, requiring maintenance of the procedure on a five	implemented, the costs of ownership of PBN procedures is
Airport / Air	Deployment costs	Initial Options Appraisal:		There will be no additional deployment costs associated with	yearly basis. There will be no additional deployment costs associated	yearly basis. There will be no additional deployment costs associated	yearly basis. There will be no additional deployment costs associated	yearly basis. There will be no additional deployment costs associated	yearly basis. There will be no additional deployment costs associated	yearly basis. There will be no additional deployment costs associated	yearly basis. There will be no additional deployment costs associated	yearly basis. There will be no additional deployment costs associated	yearly basis. There will be no additional deployment costs associated	yearly basis. There will be no additional deployment costs associated	yearly basis. There will be no additional deployment costs associated
navigation service provider		Qualitative	Nothing option.	implementing the Do Minimum option over and above the operational costs of reopening Manston Airport as a NSIP.	with the introduction of PBN procedures. No change from the Do Minimum option.	with the introduction of PBN procedures. No change from the Do Minimum option.	with the introduction of PBN procedures. No change from the Do Minimum option.	with the introduction of PBN procedures. No change from the Do Minimum option.	with the introduction of PBN procedures. No change from the Do Minimum option.	with the introduction of PBN procedures. No change from the Do Minimum option.	with the introduction of PBN procedures. No change from the Do Minimum option.	with the introduction of PBN procedures. No change from the Do Minimum option.	with the introduction of PBN procedures. No change from the Do Minimum option.	with the introduction of PBN procedures. No change from the Do Minimum option.	with the introduction of PBN procedures. No change from the Do Minimum option.
Safety Assessment	Safety Assessment	Initial Options Appraisal:	There are no safety implications associated with the	When it opens, Manston Airport will have a surveillance capability and will	No significant safety implications were identified during the	e No significant safety implications were identified during th	e No significant safety implications were identified during th	e No significant safety implications were identified during the	ne No significant safety implications were identified during th	e No significant safety implications were identified during the	No significant safety implications were identified during the	No significant safety implications were identified during the	No significant safety implications were identified during the	No significant safety implications were identified during the	No significant safety implications were identified during the
		Qualitative	Do Nothing option.	be able to provide aircraft with an Air Traffic Service (ATS). Aircraft operating to or from Manston Airport will be able to receive an ATS	safety assessment. Departing aircraft will require an air traffic service to be provided by Manston ATC for separatio	safety assessment. Departing aircraft will require an air in traffic service to be provided by Manston ATC for separation	safety assessment. Departing aircraft will require an air in traffic service to be provided by Manston ATC for separation	safety assessment. Departing aircraft will require an air on traffic service to be provided by Manston ATC for separati	safety assessment. Departing aircraft will require an air on traffic service to be provided by Manston ATC for separation	safety assessment. Departing aircraft will require an air n traffic service to be provided by Manston ATC for separatio	safety assessment. Departing aircraft will require an air n traffic service to be provided by Manston ATC for separatio	safety assessment. Departing aircraft will require an air n traffic service to be provided by Manston ATC for separation	safety assessment. Departing aircraft will require an air traffic service to be provided by Manston ATC for separatio	safety assessment. Departing aircraft will require an air traffic service to be provided by Manston ATC for separation	safety assessment. Departing aircraft will require an air traffic service to be provided by Manston ATC for separation
				appropriate to their flight conditions (IFR or VFR) in Class G airspace. Basic Service and Traffic Service will be available to flights in Class G airspace operating under both IFR and VFR, whereas a Deconfliction	with other traffic. Potential conflict between departing aircraft and traffic arriving at other London airports, mitigated by height restrictions on the Manston departure	with other traffic. Potential conflict between departing aircraft and traffic arriving at other London airports, mitigated by height restrictions on the Manston departure	aircraft and traffic arriving at other London airports,	aircraft and traffic arriving at other London airports,	with other traffic. Potential conflict between departing aircraft and traffic arriving at other London airports, mitigated by height restrictions on the Manston departure	with other traffic. Potential conflict between departing aircraft and traffic arriving at other London airports, mitigated by height restrictions on the Manston departure	aircraft and traffic arriving at other London airports,	with other traffic. Potential conflict between departing aircraft and traffic arriving at other London airports, mitigated by height restrictions on the Manston departure	with other traffic. Potential conflict between departing aircraft and traffic arriving at other London airports, mitigated by height restrictions on the Manston departure	with other traffic. Potential loss of aircraft identification in Windfarm clutter, requiring implementation of technical or operational mitigation for the impact of wind turbine	with other traffic.
				Service will only available to flights in Class G airspace operating under IFR.	procedures to ensure departing traffic remains below arrivals traffic.	procedures to ensure departing traffic remains below arrivals traffic.	procedures to ensure departing traffic remains below arrivals traffic.	procedures to ensure departing traffic remains below arrivals traffic.	procedures to ensure departing traffic remains below arrivals traffic.	procedures to ensure departing traffic remains below arrivals traffic.	procedures to ensure departing traffic remains below arrivals traffic.	procedures to ensure departing traffic remains below arrivals traffic.	procedures to ensure departing traffic remains below arrivals traffic.	generator's on PSR.	
				ATC monitoring would be able to provide safe separation from known or unknown traffic using either Primary or Secondary Surveillance Radar.											
				However, some of the overland areas that would be used for aircraft transiting to or from Manston Airport are used extensively by gliders operating in Class G airspace. Gliders will not be detectable by Primary											
				Surveillance Radar and may not be radio or transponder equipped. It is unlikely that agreed operating procedures (LOA or MOU) would offer											
				robust separation leading to significant safety concerns. The only mitigation would be to prevent aircraft from departing in a direction that											
				would potentially lead to a conflict with gliders, and restrict all departures to directions that would not come into conflict (over the sea).											

INITIAL OR	TIONS APPRAI	CAL												
INTIAL OP	LONS APPNAL	Summary of Analysis	Minimum practicable noise impact on initial departure. Deconfliction from other airports arrival routes would	Reliance on tactical vectoring from ATC would have an impact on both noise and emissions, specifically for	Direct track and oversea, minimum impact. Implementatio of technical or operational mitigation required for the	n Direct track and oversea, minimum impact.	Direct track and oversea, minimum impact.	Direct track and oversea, minimum impact.	Direct track and oversea, minimum impact.	Direct track and oversea, minimum impact. Further track miles to join the procedure for aircraft arriving from the	Designed to be flown at optimum aircraft performance in a continuous descent and minimal track miles. Will only be used	Direct track and oversea, although closer to the Southend CTA than the previous northern Transition. Further track	Designed to be flown at optimum aircraft performance in a continuous descent and minimal track miles. Will only be used	Environmental impact due to unpredictable nature of approaches. Increased chance of a missed approach, with associated impact on
			height restrict aircraft, increasing noise impact and increasing fuel burn and emissions due to not being able to	overland routes.	impact of wind turbine generator's on PSR.					west and south.	when network traffic density is low to avoid confliction with outbound London TMA aircraft performing continuous climbs.	miles to join the procedure for aircraft arriving from the west and south. Less attractive than Transition to 2,500 ft	when network traffic density is low to avoid confliction with	noise, track miles, fuel burn and emissions.
			perform a continuous climb. Following discussions with NATS, this route could be amended to extend further south									Approach due to proximity to Southend CTA.		
			to avoid conflict with the arrival routes. This would allow aircraft to perform continuous climb operations above											
			7,000 ft oversea, mitigating the noise and emissions impact.											
Group	Impact	Level of Analysis	SID RWY 10 South to West	Transition Baseline (Do Minimum)	Transition RWY 28 from North (JACKO)	Transition RWY 28 from North East (SUMUM)	Transition RWY 28 from East (RAPIX)	Transition RWY 28 from South East (KONAN)	Transition RWY 28 from South (OKVAP)	Transition RWY 10 from North to 2,500ft Approach	Transition RWY 10 from South to 2,500ft Approach (West)	Transition RWY 10 from North to 3,000ft Approach	Transition RWY 10 from South to 3,000ft Approach (West)	Approach Procedure Baseline (Do Minimum)
			Option 15		Option 16	Option 17	Option 18	Option 19	Option 20	Option 21	Option 23	Option 24	Option 26	
Communities	Noise impact on health and quality of life	Initial Options Appraisal: Qualitative	the town of Ramsgate as aircraft will not have achieved the	As this option would rely on tactical vectoring from ATC, there would be no consistency in terms of aircraft routing.		As this option is solely located over the sea, there is no implications in terms of noise impact on local communities or	As this option is solely located over the sea, there is no implications in terms of noise impact on local communities	As this option is solely located over the sea, there is no implications in terms of noise impact on local communities or areas of tranquillity. This represents an improvement to the Do			This option routes over rural areas, avoiding large built-up areas and villages. Lower aircraft power settings will be applicable at		This option routes over rural areas, avoiding large built-up areas and villages. Lower aircraft power settings will be applicable at	Aircraft conducting visual approaches are more likely to follow different tracks over the ground producing a noise impact. Greater likelihood of an unstable approach and aircraft therefore needing to
			minimum neight required to initiate any turns. Noise impact will be the same as the Do Minimum option due to the location and proximity of Ramsgate in relation to the	As a result, aircraft routing will vary depending on the position of airway leaving point, with an associated impact on both noise and number of population overflown below	the Do Minimum option.	areas of tranquility. This represents an improvement to the Do Minimum option.	the Do Minimum option.	Minimum option.	or areas or tranquility. Inis represents an improvement to the Do Minimum option.	or areas or tranquisity. This represents an improvement to the Do Minimum option.	this stage as the aircraft is descending. Noise impact more concentrated than Do Minimum option due to predictable routin but should be less impact due to lower power settings in a	or areas of tranquility. This represents an improvement to g the Do Minimum option.	this stage as the aircraft is descending. Noise impact more concentrated than Do Minimum option due to predictable routing but should be less impact due to lower power settings in a	inceiniood of an unstable approach and aircraft therefore needing to carry out a missed approach and conducting further approaches, with a further impact on noise. Greater likelihood of avoiding action in
				7,000 ft. There would be an increased likelihood of avoiding							continuous descent.		continuous descent.	Class G airspace also likely to impact noise on local communities.
			separated to the west of arrival routes into London airports,								Aircraft overfly the Kent Downs AONB in the descent to join the approach procedure. Aircraft should be above 4,000 ft whilst		Aircraft overfly the Kent Downs ADNB in the descent to join the approach procedure. Aircraft should be above 4,000 ft whilst	There is also likely to be an impact on locally identified areas of tranquillity, such as the Sandwich and Pegwell Bay National Nature
			including Dover and Folkestone. Noise impact will be the same as the Do Minimum option as aircraft departing in this	tranquillity in the Kent Downs ADNB from aircraft arriving from the south west for approaches to Runway 10. There is							transiting across the AONB. This impact should be less than the Do Minimum option.		transiting across the AONB. This impact should be less than the Do Minimum option.	Reserve.
			-	also likely to be an impact on locally identified areas of tranquillity, such as the Sandwich and Pegwell Bay National										
			Aircraft may overfly the Kent Downs AONB whilst remaining at approximately 7,000 ft until laterally separated to the	Nature Reserve.										
			west of the London airport arrivals procedures, although this impact should be less than the Do Minimum option.											
Communities	Air Quality	Initial Options Appraisal: Qualitative	until above 1,000 ft. Aircraft flying this departure would be	1,000 ft. Aircraft will be above 1,000 ft during the transition	times, hence there will be no impact on air quality or the	times, hence there will be no impact on air quality or the Thanet	times, hence there will be no impact on air quality or the	Aircraft will be above 1,000 ft and remain over the sea at all time hence there will be no impact on air quality or the Thanet Urban	times, hence there will be no impact on air quality or the	times, hence there will be no impact on air quality or the	Aircraft will be above 1,000 ft at all times, hence there will be no impact on air quality or the Thanet Urban AQMA.	times, hence there will be no impact on air quality or the	I Aircraft will be above 1,000 ft at all times, hence there will be no impact on air quality or the Thanet Urban AQMA.	Local Air Quality is likely to be affected by aircraft within 3 nautical miles of the airfield below 1,000 ft. The positions of aircraft below
			As the aircraft has not reached a sufficient height to enable			Urban AQMA.	Thanet Urban AQMA.	AQMA.	Thanet Urban AQMA.	Thanet Urban AQMA.	This option will have no impact on biodiversity.	Thanet Urban AQMA.	This option will have no impact on biodiversity.	1,000 ft are likely to be very similar (immediately after take-off, or on final approach) to the assessment conducted for the DCO and hence
			a turn at this point, overflying Ramsgate is unavoidable. No change to the Do Minimum option due to the location and	The DCO Environmental Assessment concluded that there would be no significant impact on biodiversity as a result of	This option will have no impact on biodiversity.	This option will have no impact on biodiversity. No change to the Do Minimum option.	This option will have no impact on biodiversity. No change to the Do Minimum option.	This option will have no impact on biodiversity. No change to the Do Minimum option.	This option will have no impact on biodiversity. No change to the Do Minimum option.	This option will have no impact on biodiversity. No change to the Do Minimum option.	No change to the Do Minimum option.	This option will have no impact on biodiversity. No change to the Do Minimum option.	No change to the Do Minimum option.	there should be no significant impact on air quality around the airport and specifically in the Thanet Urban AQMA as a result of implementing the Do Minimum option.
				the redevelopment of Manston Airport, despite the significant amount of ground-based infrastructure work that	No change to the Do Minimum option.	No change to the Do Minimum option.	No change to the Do Minimum option.	No change to the Do Minimum option.	No change to the Do Minimum option.	No change to the Do Minimum option.		No change to the Do Minimum option.		The DCO Environmental Assessment concluded that there would be no
				would be undertaken. Implementing the Do Minimum option can therefore be assumed to have no significant										significant impact on biodiversity as a result of the redevelopment of Manston Airport, despite the significant amount of ground-based
			biodiversity given that the implementation will not require any ground works to support implementation.	impact on biodiversity.										infrastructure work that would be undertaken. Implementing the Do Minimum option can therefore be assumed to have no significant
														Impact on biodiversity.
Milden Cont	Grande	Initial Options to	Aircraft will be able to and an anti-	The lack of appropriate and the second secon	Thir properture would be a second of the sec	The procedure usual in-	Thir percenture would be a second	Thir procedure would/	Thir properties would be seen as	Thir properture would be seen as	Thir properties would in	Thir percedure would be seen to the seen t	Thir properture would in-	The lark of appropriate for the second
Wider Society	Greennouse Gas Impact	: Initial Options Appraisal: Qualitative	Aircraft will be able to perform optimum climb performance initially but aircraft will be required to remain at approximately 7,000 ft until laterally separated the west of	aircraft performance and are therefore predicted to have an environmental impact in terms of environmental in terms of environmental in terms of environmental in ter	procedure would incorporate a continuous descent profile at optimum aircraft performance and minimises the track miles flown, minimising emissions. Moor afficient	optimum aircraft performance and minimises the track miles flown, minimising emissions. More efficient modific should are the	profile at optimum aircraft performance and minimises the track miles flown, minimising emissions. Many afficient	This procedure would incorporate a continuous descent profile at e optimum aircraft performance and minimises the track miles flown, minimising emissions. More efficient profile should result	profile at optimum aircraft performance and minimises the track miles flown, minimising emissions. Many afficient	profile at optimum aircraft performance. Although the Transition procedure itself minimizer the number of transition procedure itself minimizer the number of transition procedure.	This procedure would incorporate a continuous descent profile a optimum aircraft performance, although this would only be possible when network traffic density was low due to confliction	profile at optimum aircraft performance. Although the	This procedure would incorporate a continuous descent profile at optimum aircraft performance, although this would only be possible when network traffic density was low due to conflictions	The lack of approved procedures do not support optimum aircraft performance and are therefore predicted to have an environmental impact. There is a likelihood of increased track mileage and the use of
			arrival routes into London airports, resulting in greater fuel	unlikely to be able to perform continuous descent operations and routing is likely to require an increase in	profile should result in less impact than the Do Minimum option.	in less impact than the Do Minimum option.	profile should result in less impact than the Do Minimum option.	in less impact than the Do Minimum option.	profile should result in less impact than the Do Minimum option.	miles flown, for aircraft joining this procedure from the south, this is not the most direct routing and will increase	with traffic performing continuous climb operations outbound from the London TMA. This procedure represents the minimum	miles flown, for aircraft joining this procedure from the	with traffic performing continuous climb operations outbound from the London TMA. This procedure represents the minimum	impact. There is a likelinood or increased track mileage and the use or higher power settings and therefore impact on emissions. There is an increased likelihood of missed approaches leading to additional
				track miles at lower altitudes due to vectoring by ATC. This will mean higher engine power settings and greater track						the number of track miles flown and therefore additional fuel burn and emissions. More efficient profile should resul	track miles for aircraft arriving from the west. More efficient	the number of track miles flown and therefore additional fuel burn and emissions. More efficient profile should result	track miles for aircraft arriving from the west. More efficient t profile should result in less impact than the Do Minimum option.	approaches and increased track miles and associated impact on emissions.
				miles, impacting fuel burn and emissions. There is also the increased likelihood of avoiding action in relation to other						In less impact than the Do Minimum option, although increased track miles for aircraft arriving from the south		In less impact than the Do Minimum option, although increased track miles for aircraft arriving from the south		
				airspace users operating in Class G airspace.						could result in greater impact.		could result in greater impact.		
Wider Society	Capacity and resilience	Initial Options Appraisal:	This option does support the management of capacity and	This option is an ineffective way of managing airspace.		This option will involve aircraft crossing into the LONDON FIR at			This procedure has been designed in consultation with NATS	5 This procedure has been designed in consultation with NAT	This procedure has been designed in consultation with NATS and	This procedure has been designed in consultation with NAT	This procedure has been designed in consultation with NATS and	This option is an ineffective way of managing airspace. Manston Airport would not meet the airspace modernisation priorities,
		Qualitative	resilience and was developed in coordination with NATS as part of FASI-S in accordance with the UK Airspace	Manston Airport would not meet the airspace modernisation priorities, including the coordination with other airspace users as part of the FASI-S programme. In	and the FASI-S programme, in accordance with the UK Airspace Modernisation Strategy. This option enables a consistent approach to aircraft arriving from the airway	SUMUM which is a boundary point widely used at the moment for arrivals into London airports. This route will increase airspace connectivity and capacity for aircraft arriving into Manston.	FIR from the adjacent FIR. This route will increase airspace connectivity and capacity for aircraft arriving into Manstor transiting from the east.	from the adjacent FIR (at KONAN). This route will increase alrspace connectivity and capacity for aircraft arriving into Manston transiting from the east.	and the FASI-S programme, in accordance with the UK Airspace Modernisation Strategy. This option enables a consistent approach to aircraft arriving from the airway	and the FASI-S programme, in accordance with the UK Airspace Modernisation Strategy. This option enables a consistent approach to aircraft arriving from the airway	the FASI-S programme, in accordance with the UK Airspace Modernisation Strategy. This option enables a consistent approar to aircraft arriving from the airway system from the west, This	and the FASI-S programme, in accordance with the UK th Airspace Modernisation Strategy. This option enables a consistent approach to aircraft arriving from the airway	Modernisation Strategy. This option enables a consistent approach	Airport would not meet the airspace modernisation priorities, including the coordination with other airspace users as part of the FASI- 5 programme. In poor weather conditions, there is a higher likelihood
			Modernisation Strategy. However, traffic would be subject to height restrictions until clear of London airport arrival	poor weather conditions, there is a higher likelihood of aircraft having to carry out multiple approaches or divert to	system (via JACKO) from the north and north west. This	connectivity and capacity for aircraft arriving into Manston.	transiting from the east.	Manston transiting from the east.	system from the south, This enables increased capacity, efficiency and reduced track mileage.	system from the north and east, This enables increased capacity, efficiency and reduced track mileage. Aircraft	to aircraft arriving from the airway system from the west, This enables increased capacity, efficiency and reduced track mileage	system from the north and east, This enables increased capacity, efficiency and reduced track mileage. Aircraft	to aircraft arriving from the airway system from the west, Inis enables increased capacity, efficiency and reduced track mileage.	s programme. In poor weather conditions, there is a nigner incenhood of aircraft having to carry out multiple approaches or divert to other airports with suitable approach aids, which will have a significant
			TOURS.	other airports with suitable approach aids, which will have a significant impact on the resilience of the airport.	mileage.				ements and reduced data inneage.	flying this option would initially fly on the London City Transition procedure and then join the Manston approach		flying this option would initially fly on the London City Transition procedure and then join the Manston approach		impact on the resilience of the airport.
										procedure.		procedure.		
General Aviation	Access	Initial Options Appraisal: Qualitative	This route would have minimal impact on other airspace users. No change to airspace access is predicted.	No changes are proposed to the parameters of the current airspace structure around Manston Airport and therefore no	No changes are proposed to the parameters of the current airspace structure around Manston Airport and therefore n	No changes are proposed to the parameters of the current alirspace structure around Manston Airport and therefore no	No changes are proposed to the parameters of the current airspace structure around Manston Airport and therefore r	No changes are proposed to the parameters of the current no airspace structure around Manston Airport and therefore no		No changes are proposed to the parameters of the current	No changes are proposed to the parameters of the current airspace structure around Manston Airport and therefore no		No changes are proposed to the parameters of the current airspace structure around Manston Airport and therefore no	No changes are proposed to the parameters of the current airspace structure around Manston Airport and therefore no change to airspace
				change to airspace access is predicted.	change to airspace access is predicted.	change to airspace access is predicted.	change to airspace access is predicted.	change to airspace access is predicted.	change to airspace access is predicted.	change to airspace access is predicted.	change to airspace access is predicted.	change to airspace access is predicted.	change to airspace access is predicted.	access is predicted.
General Aviation / commercial airlines	Economic impact from increased effective	Initial Options Appraisal: Qualitative	The introduction of PBN procedures coordinated with NATS and other FASI-S sponsors will contribute to the delivery of	positive economic impact with an increase in both air	and other FASI-S sponsors will contribute to the delivery of	other FASI-S sponsors will contribute to the delivery of associated	and other FASI-S sponsors will contribute to the delivery of	The introduction of PBN procedures coordinated with NATS and other FASI-S sponsors will contribute to the delivery of associated	and other FASI-S sponsors will contribute to the delivery of	and other FASI-S sponsors will contribute to the delivery of	other FASI-S sponsors will contribute to the delivery of associates	and other FASI-S sponsors will contribute to the delivery of	other FASI-S sponsors will contribute to the delivery of associated	
	capacity		which is predicted to have direct and indirect economic	transport and GA movements from the current position of zero movements. Any impact as a result of operating the	associated benefits including increased effective capacity which is predicted to have direct and indirect economic	to have direct and indirect economic benefits associated with an	which is predicted to have direct and indirect economic	to have direct and indirect economic benefits associated with an	which is predicted to have direct and indirect economic	which is predicted to have direct and indirect economic	to have direct and indirect economic benefits associated with an	which is predicted to have direct and indirect economic	to have direct and indirect economic benefits associated with an	movements from the current position of zero movements. Any impact as a result of operating the airport without approved procedures is likely to be a negative impact on the estimates above due to the
				airport without approved procedures is likely to be a negative impact on the estimates above due to the	benefits associated with an increase in both air transport and GA movements.	increase in both air transport and GA movements.	benefits associated with an increase in both air transport and GA movements.	increase in both air transport and GA movements.	benefits associated with an increase in both air transport and GA movements.	benefits associated with an increase in both air transport and GA movements.	increase in both air transport and GA movements.	benefits associated with an increase in both air transport and GA movements.	increase in both air transport and GA movements.	likely to be a negative impact on the estimates above due to the increased likelihood of aircraft having to divert due to poor weather.
				increased likelihood of aircraft having to divert due to poor weather.										
General Aviation / commercial airlines	Fuel burn	Initial Options Appraisal: Qualitative	Aircraft will be able to perform optimum climb performance initially but aircraft will be required to remain at	There will be an impact on fuel burn due to unpredictable routes due to variation in airways leaving positions and	Most practical and expeditious route, continuous descent a optimum aircraft performance therefore minimises fuel	t Most practical and expeditious route, continuous descent at optimum aircraft performance therefore minimises fuel burn for	Most practical and expeditious route, continuous descent optimum aircraft performance therefore minimises fuel	at Most practical and expeditious route, continuous descent at optimum aircraft performance therefore minimises fuel burn for this procedure. Less impact than the Do Minimum option.	Most practical and expeditious route, continuous descent at optimum aircraft performance therefore minimises fuel	optimum aircraft performance therefore minimises fuel	Most practical and expeditious route, continuous descent at optimum aircraft performance therefore minimises fuel burn for	Most practical and expeditious route, continuous descent at optimum aircraft performance therefore minimises fuel	Most practical and expeditious route, continuous descent at optimum aircraft performance therefore minimises fuel burn for	There will be an impact on fuel burn due to unpredictable routes due to ATC vectoring. There is an increased likelihood of missed
			arrival routes into London airports, resulting in greater fuel	aircraft performance through continuous descent	burn for this procedure. Less impact than the Do Minimum option.	this procedure. Less impact than the Do Minimum option.	burn for this procedure. Less impact than the Do Minimum option.	this procedure. Less impact than the Do Minimum option.	burn for this procedure. Less impact than the Do Minimum option.	therefore fuel burn will be incurred by aircraft joining from	this procedure. Less impact than the Do Minimum option.	burn for this procedure. Additional track milage and therefore fuel burn will be incurred by aircraft joining from	this procedure. Less impact than the Do Minimum option.	approaches leading to additional approaches and increased track miles and hence associated impact on fuel burn.
			burn. Likely to have similar impact to Do Minimum option due to inefficient climb profiles.	operations unlikely to be achieved.						the south. More efficient profile should result in less impact than the Do Minimum option, although increased track		the south. More efficient profile should result in less impact than the Do Minimum option, although increased track miles for aircraft arriving from the south could result in		
										miles for aircraft arriving from the south could result in greater impact.		miles for aircraft arriving from the south could result in greater impact.		
Commercial airlines	Training costs	Initial Options Appraisal: Qualitative	There will be no additional training costs required for commercial operators flying PBN routes or procedures.	There will be no additional training costs associated with implementing the Do Minimum option over and above the	There will be no additional training costs required for commercial operators flying PBN routes or procedures.	There will be no additional training costs required for commercial operators flying PBN routes or procedures.	There will be no additional training costs required for commercial operators flying PBN routes or procedures.	There will be no additional training costs required for commercial operators flying PBN routes or procedures.	There will be no additional training costs required for commercial operators flying PBN routes or procedures.	There will be no additional training costs required for commercial operators flying PBN routes or procedures.	There will be no additional training costs required for commercial operators flying PBN routes or procedures.	There will be no additional training costs required for commercial operators flying PBN routes or procedures.	There will be no additional training costs required for commercial operators flying PBN routes or procedures.	There will be no additional training costs associated with implementing the Do Minimum option over and above the training
			, , v	training costs associated with the reopening Manston Airport as a NSIP. No additional training would be required	, ,		, ,		, ,	, ,		, , , , , , , , , , , , , , , , , ,		costs associated with the reopening Manston Airport as a NSIP. No additional training would be required by commercial airlines or GA as
				by commercial airlines or GA as a result of reopening the airport without any approved procedures.										a result of reopening the airport without any approved procedures.
Commercial airlines	Other costs	Initial Options Appraisal:	The availability of approved procedures should lead to	The lack of approved procedures should not result in any	The availability of approved econodurer should lead to	The availability of approved procedures should lead to fewer	The availability of approved procedures should lead to	The availability of approved procedures should lead to fewer	The availability of approved procedures should lead to	The availability of approved procedures should lead to	The availability of approved procedures should lead to fewer	The availability of approved procedures should lead to	The availability of approved procedures should lead to fewer	The lack of approved procedures, specifically instrument Approach
and the second second		Qualitative	fewer minima related diversions and associated costs. Other costs to operators may include updates to aircraft	other additional costs for commercial airlines.	fewer minima related diversions and associated costs. Other costs to operators may include updates to aircraft	minima related diversions and associated costs. Other costs to operators may include updates to aircraft Flight Management	fewer minima related diversions and associated costs. Other costs to operators may include updates to aircraft	minima related diversions and associated costs. Other costs to operators may include updates to aircraft Flight Management	fewer minima related diversions and associated costs. Other costs to operators may include updates to aircraft	fewer minima related diversions and associated costs. Other costs to operators may include updates to aircraft	minima related diversions and associated costs. Other costs to operators may include updates to aircraft Flight Management	fewer minima related diversions and associated costs. Other costs to operators may include updates to aircraft	minima related diversions and associated costs. Other costs to operators may include updates to aircraft Flight Management	Procedures could lead to an increased cost to commercial airlines due to the higher likelihood of aircraft being unable to land at Manston
			Flight Management Systems (FMS) and navigation databases. Any additional costs are likely to be less than		Flight Management Systems (FMS) and navigation databases. Any additional costs are likely to be less than	Systems (FMS) and navigation databases. Any additional costs are	Flight Management Systems (FMS) and navigation databases. Any additional costs are likely to be less than	Systems (FMS) and navigation databases. Any additional costs are	Flight Management Systems (FMS) and navigation databases. Any additional costs are likely to be less than	Flight Management Systems (FMS) and navigation databases. Any additional costs are likely to be less than	Systems (FMS) and navigation databases. Any additional costs an likely to be less than those associated with the Do Minimum	Flight Management Systems (FMS) and navigation databases. Any additional costs are likely to be less than		Airport due to poor weather. Extra costs would include additional fuel usage during diversion to alternate airports, additional airport fees,
			those associated with the Do Minimum option.		those associated with the Do Minimum option.	option.	those associated with the Do Minimum option.	option.	those associated with the Do Minimum option.	those associated with the Do Minimum option.	option.	those associated with the Do Minimum option.	option.	time and fuel to return to Manston Airport or ground transport costs for moving cargo from an alternate location.
Airport / Air navigation service	infrastructure costs	Initial Options Appraisal: Qualitative	with the introduction of PBN routes or procedures. No	There are no additional infrastructure costs associated with the Do Minimum option as a direct result of this ACP over and above the costs of recogning Magneton Airport as a NSIR.	inere will be no additional infrastructure costs associated with the introduction of PBN routes or procedures. No	I nere will be no additional infrastructure costs associated with the introduction of PBN routes or procedures. No change from the Do Minimum option	inere will be no additional infrastructure costs associated with the introduction of PBN routes or procedures. No change from the Do Mariana and a	There will be no additional infrastructure costs associated with th introduction of PBN routes or procedures. No change from the D Minimum option.	with the introduction of PBN routes or procedures. No	inere will be no additional infrastructure costs associated with the introduction of PBN routes or procedures. No	There will be no additional infrastructure costs associated with the introduction of PBN routes or procedures. No change from the Do Minimum petion.	There will be no additional infrastructure costs associated with the introduction of PBN routes or procedures. No change from the Do Minimum option.	There will be no additional infrastructure costs associated with the introduction of PBN routes or procedures. No change from the Do Minimum ontion.	There are no additional infrastructure costs associated with the Do Minimum option as a direct result of this ACP over and above the costs of reposeing Magneton Airport as a NCID
provider			change from the Do Minimum option.	and above the costs of reopening Manston Airport as a NSIP.	criange from the Do Winimum option.	use ad Minimum option.	LININGS From the UO Minimum option.	www.hum option.	unangle from the up Minimum option.	unange from the up Minimum option.	ure od Minimum option.	Linerige from the Do Minimum option.	the Do Minimum option.	of reopening Manston Airport as a NSIP.
Airport / Air navigation service	Operational costs	Initial Options Appraisal: Qualitative	procedures relate to IFP design, validation (ground and	associated with implementing the Do Minimum option over	The operational costs associated with implementing PBN procedures relate to IFP design, validation (ground and	The operational costs associated with implementing PBN procedures relate to IFP design, validation (ground and airborne),	procedures relate to IFP design, validation (ground and	The operational costs associated with implementing PBN procedures relate to IFP design, validation (ground and airborne),	procedures relate to IFP design, validation (ground and	The operational costs associated with implementing PBN procedures relate to IFP design, validation (ground and	procedures relate to IFP design, validation (ground and airborne)	The operational costs associated with implementing PBN procedures relate to IFP design, validation (ground and	The operational costs associated with implementing PBN procedures relate to IFP design, validation (ground and airborne),	There will be no additional routine operational costs associated with implementing the Do Minimum option over and above the operational
provider			airborne), safety assessment, airspace change and consultation, certification and publication. Once	and above the operational costs of reopening Manston Airport as a NSIP.	airborne), safety assessment, airspace change and consultation, certification and publication. Once	safety assessment, airspace change and consultation, certification and publication. Once implemented, the costs of ownership of	airborne), safety assessment, airspace change and consultation, certification and publication. Once	safety assessment, airspace change and consultation, certification and publication. Once implemented, the costs of ownership of	airborne), safety assessment, airspace change and consultation, certification and publication. Once	airborne), safety assessment, airspace change and consultation, certification and publication. Once	safety assessment, airspace change and consultation, certificatio and publication. Once implemented, the costs of ownership of	n airborne), safety assessment, airspace change and consultation, certification and publication. Once	safety assessment, airspace change and consultation, certification and publication. Once implemented, the costs of ownership of	costs of reopening Manston Airport as a NSIP. However, the increased likelihood of aircraft needing to divert due to poor weather at Manston
			implemented, the costs of ownership of PBN procedures is very low, requiring maintenance of the procedure on a five		implemented, the costs of ownership of PBN procedures is very low, requiring maintenance of the procedure on a five	PBN procedures is very low, requiring maintenance of the	implemented, the costs of ownership of PBN procedures is very low, requiring maintenance of the procedure on a five	PBN procedures is very low, requiring maintenance of the	implemented, the costs of ownership of PBN procedures is very low, requiring maintenance of the procedure on a five	implemented, the costs of ownership of PBN procedures is very low, requiring maintenance of the procedure on a five	PBN procedures is very low, requiring maintenance of the	implemented, the costs of ownership of PBN procedures is very low, requiring maintenance of the procedure on a five	PBN procedures is very low, requiring maintenance of the procedure on a five yearly basis.	Airport may induce increased operational costs at the airport.
Airport / Air	Deployment costs	Initial Options Appraisal:	yearly basis. There will be no additional deployment costs associated	There will be no additional deployment costs associated	yearly basis. There will be no additional deployment costs associated	There will be no additional deployment costs associated with the		There will be no additional deployment costs associated with the	yearly basis. There will be no additional deployment costs associated	yearly basis. There will be no additional deployment costs associated	There will be no additional deployment costs associated with the		There will be no additional deployment costs associated with the	
navigation service provider		Qualitative	with the introduction of PBN procedures. No change from	with implementing the Do Minimum option over and above the operational costs of reopening Manston Airport as a	with the introduction of PBN procedures. No change from	introduction of PBN procedures. No change from the Do Minimum option.	with the introduction of PBN procedures. No change from the Do Minimum option.		with the introduction of PBN procedures. No change from	with the introduction of PBN procedures. No change from the Do Minimum option.	introduction of PBN procedures. No change from the Do Minimum option.	with the introduction of PBN procedures. No change from the Do Minimum option.	introduction of PBN procedures. No change from the Do Minimum option.	implementing the Do Minimum option over and above the operational costs of reopening Manston Airport as a NSIP.
				NSP.										
Safety Assessment	Safety Assessment	Initial Options Appraisal: Qualitative	safety assessment. Departing aircraft will require an air	safety assessment.	safety assessment. Potential loss of aircraft identification in		No significant safety implications were identified during the safety assessment.	No significant safety implications were identified during the safet assessment.	No significant safety implications were identified during the safety assessment.	safety assessment. The procedure is close to the current an	No significant safety implications were identified during the safe d assessment. The procedure is close to the Southend CTA.	safety assessment. The procedure is close to the current an	No significant safety implications were identified during the safety d assessment. The procedure is close to the Southend CTA.	No significant safety implications were identified during the safety assessment.
			traffic service to be provided by Manston ATC for separation with other traffic. Potential conflict between departing		Windfarm clutter, requiring implementation of technical or operational mitigation for the impact of wind turbine					proposed Southend CTAs.		proposed Southend CTAs.		
			aircraft and traffic arriving at other London airports in the vicinity of DVR VOR. Mitigated by height restrictions on the Montree departure procedures to accura departing traffic		generator's on PSR.									
			Manston departure procedures to ensure departing traffic remains below arrivals traffic.											
						1	I		I		I			
				l									<u> </u>	

INITIAL OP	TIONS APPRAI	ISAL										
			Minimum practicable impact from approach. MAP represents the minimum practicable track miles, minimising noise impact	Rejected - Minimum practicable impact from approach. Missed approach has greater noise impact than the previous option due	Minimum noise impact and minimum track miles, reducing emissions. Safety assessment concerns mitigated.	Minimum noise impact and minimum track miles, reducing emissions. Safety assessment concerns mitigated.	with associated noise impact in the local area. Aircraft will	Rejected - greater noise impact than the south west option.	Rejected - greater noise impact than the south west option.	minimising noise impact. Hold will not be used when	Does not allow for any protection of aircraft during the critical stages of flight.	Minimum impact on noise and emissions, other than minor redistribution of existing GA traffic. Provides protection of
			with most of the procedure over the sea. Potential to move the Hold position away from the Windfarm whilst remaining over the sea	to proximity to populated area. Longer MAP option, although most of the procedure is over the sea. Potential to move the Hold position away from the Windfarm whilst remaining over			hold for the minimum amount of time, impacting emissions. Should the airport decide not to install an NDB, GA aircraft will be required to hold VFR away from the			commercial aircraft are inbound on an approach procedure due to possible conflict with the MAP.		aircraft during critical stages of flight when arriving, departing or flying in the vicinity of the airport.
				the sea. Rejected in favour of lower noise impact of previous option.			airport, hence this option is taken forward.					
	1											
Group	Impact	Level of Analysis	RWY 28 ILS/RNAV MAP North (East)	RWY 28 ILS/RNAV MAP North (West)	RWY 10 ILS/RNAV 2,500ft Approach MAP North	RWY 10 ILS/RNAV 3,000ft Approach MAP North	NDB Hold Baseline (Do Minimum)	NDB Hold North East	NDB Hold North West	NDB Hold South West	Regulated Airspace (Do Minimum)	Aerodrome Traffic Zone (ATZ)
Communities	Noise impact on health	Initial Options Appraisal:	Option 27 The initial part of this proposed procedure is over the sea, so	Option 28 The initial part of this proposed procedure is over the sea, so	Option 30 The Initial Approach segments are either over the sea, or	Option 32 The Initial Approach segments are either over the sea, or	With this option, GA aircraft will be required to hold away	Option 34 For this option, aircraft would be required to hold over	Option 35 For this option, aircraft would be required to hold over the	Option 36 For this option, aircraft would hold over rural areas,	Without any regulated airspace, there is an increased	Option 37 The introduction of an ATZ will have a minimal impact in
	and quality of life	Qualitative	does not affect any communities. Aircraft will have to overfly Ramsgate, located only 2.3 nautical miles from touchdown, making it unavoidable. The MAP is over a rural area of Kent	does not affect any communities. Aircraft will have to overfly Ramsgate, located only 2.3 nautical miles from touchdown, making it unavoidable. The MAP is over a rural area of Kent and	over rural areas, avoiding large built-up areas and villages. The intermediate and Final Approach segments are unable to avoid the town of Herne Bay due to the location and	over rural areas, avoiding large built-up areas and villages. The Intermediate and Final Approach segments are unable to avoid the town of Herne Bay due to the location and	from the airport but in no specific location. The position will be determined by the aircraft captain operating VFR in Class G airspace. Aircraft could even be as low as 500ft,	Ramsgate and Broadstairs (including the turning portion of the hold) meaning that noise impacts will be significantly increased. This option is also in close proximity to various	outskirts of Birchington meaning that noise impacts will be significantly increased. Other than Birchington, the remainder of this hold files over rural areas, avoiding towns	avoiding towns and villages, although aircraft would be close to the villages of Cliffs End, Minster and Monkton. Compared to the previous two options, this proposed option	likelihood of aircraft requiring avoidance action which will have an impact on noise in the area around the airport.	terms of noise, other than the redistribution of existing GA traffic, but overflight of noise sensitive areas will be kept to a minimum. May result in redistribution of noise impact
			and avoids large built-up areas and villages, following the shortest route to the coast, after which, aircraft will remain	avoids large built-up areas and villages, although it does fly closer to the village of St Nicholas-At-Wade (compared to the previous option). This will have a limited noise impact on local	orientation of the runway. The MAP goes over the town of Ramsgate, which is unavoidable due to the location. Noise	orientation of the runway. The MAP goes over the town of Ramsgate, which is unavoidable due to the location. Noise	affecting noise levels over the surrounding areas.	schools and care homes. Greater noise impact than the Do Minimum option.	and villages. Greater noise impact than the Do Minimum option.	impacts less communities in terms of noise. Noise impact will be more concentrated but over a rural area so likely to be less people affected than the Do Minimum option.	There will be no impact on areas of tranquillity.	than the Do Minimum option with different rather than more population affected.
			over the sea. This will have a limited noise impact on local communities in terms of noise until the aircraft is back out over the sea. No change to the noise impact of the approach	communities in terms of noise until the aircraft is back out over the sea. No change to the noise impact of the approach due to	impact likely to be greater than the Do Minimum option due to the design requirements of an IFP with more concentration further from the runway.	impact likely to be greater than the Do Minimum option due to the design requirements of an IFP with more concentration further from the runway.	There is also likely to be an impact on locally identified areas of tranquillity, such as the Sandwich and Pegwell Bay National Nature Reserve and the Thanet Coast and Sandwich	This route avoids areas that are particularly sensitive to noise, hence this is likely to have less of an impact on	This route avoids areas that are particularly sensitive to noise, hence this is likely to have less of an impact on	be less people affected than the DO Minimum option.		
			due to the location and proximity of Ramsgate to the runway. Noise impact of MAP more concentrated than the Do Minimun	the location and proximity of Ramsgate to the runway. Noise impact of MAP more concentrated than the Do Minimum option	This route avoids areas that are particularly sensitive to	This route avoids areas that are particularly sensitive to	Bay SPA.	tranquillity than the Do Minimum option.	tranquillity than the Do Minimum option.			
			option but less likely to occur due to improved minima of an approved procedure.	procedure.	tranquility than the Do Minimum option.	noise, hence this is likely to have less of an impact on tranquillity than the Do Minimum option.						
			This route avoids the majority of areas that are particularly sensitive to noise, although the MAP crosses a narrow section of the Thanet Coast SSSI as it crosses the coast. This is likely to	This route avoids the majority of areas that are particularly sensitive to noise, although the MAP crosses a narrow section of the Threat County County and the MAP crosses are narrow section of the Threat County County (
			have less of an impact on tranquillity than the Do Minimum option.	have less of an impact on tranquillity than the Do Minimum option.								
Communities	Air Quality	Initial Options Appraisal: Qualitative	Local Air Quality is likely to be affected by aircraft within 3 nautical miles of the airfield below 1,000 ft. Ramsgate is only	Local Air Quality is likely to be affected by aircraft within 3 nautical miles of the airfield below 1,000 ft. Ramsgate is only 2.		Local Air Quality is likely to be affected by aircraft within 3 nautical miles of the airfield below 1,000 ft. The positions of aircraft below 1,000 ft are likely to be very similar to the		The hold will be flown at 2,000 ft so there will be no impact on the Local Air Quality and specifically in the Thanet Urban	on the Local Air Quality and specifically in the Thanet Urban		The assessment conducted for the DCO concluded that there should be no significant impact on air quality around the airport and specifically in the Thanet Urban AQMA,	The implementation of an ATZ is not expected to have any impact on local air quality. No change from the Do
			2.3 nautical miles from touchdown, so overflight below 1,000 ft is unavoidable. However, the positions of aircraft below 1,000 ft are likely to be very similar to the Do Minimum option	nautical miles from touchdown, so overflight below 1,000 ft is unavoidable. However, the positions of aircraft below 1,000 ft are likely to be very similar to the Do Minimum option. No	Do Minimum option and hence there should be no change in the impact on air quality around the airport and	Do Minimum option and hence there should be no change in the impact on air quality around the airport and	conducted for the DCD included GA aircraft and hence there should be no significant impact on air quality around the	AQMA No change to the Do Minimum option. This option is not expected to result in any changes to	AQMA No change to the Do Minimum option. This option is not expected to result in any changes to	AQMA No change to the Do Minimum option. This option is not expected to result in any changes to	hence there should be no significant impact on air quality as a result of implementing the Do Minimum option.	S This option will have no impact on biodiversity.
			No change to the Do Minimum option due to the location and proximity of Ramsgate in relation to the runway and hence no	change to the Do Minimum option due to the location and proximity of Ramsgate in relation to the runway and hence no change in the Thanet Urban AOMA as a result of implementing	specifically in the Thanet Urban AQMA as a result of implementing the Do Minimum option.	specifically in the Thanet Urban AQMA as a result of implementing the Do Minimum option.	airport and specifically in the Thanet Urban AQMA as a result of implementing the Do Minimum option.	biodiversity. No change to the Do Minimum option.	biodiversity. No change to the Do Minimum option.	biodiversity. No change to the Do Minimum option.	The Do Minimum option will have no impact on biodiversity	r.
			this option. Aircraft less likely to carry out a MAP which should mean less impact than the Do Minimum option.	this option. The MAP is closer to the village of St Nicholas-At- Wade than the previous option, but aircraft less likely to carry	This option is not expected to result in any changes to biodiversity given that the implementation will not require	This option is not expected to result in any changes to biodiversity given that the implementation will not require	The DCO Environmental Assessment concluded that there would be no significant impact on biodiversity as a result of					
			This option is not expected to result in any changes to biodiversity given that the implementation will not require any	out a MAP which should mean less impact than the Do Minimun option.	any ground works to support implementation.	any ground works to support implementation.	the redevelopment of Manston Airport, despite the significant amount of ground-based infrastructure work that would be undertaken. Implementing this option can					
			ground works to support implementation.	This option is not expected to result in any changes to biodiversity given that the implementation will not require any			therefore be assumed to have no significant impact on biodiversity.					
Wider Society	Greenhouse Gas impact	t Initial Options Appraisal:		ground works to support implementation. The procedure incorporates a continuous descent profile, to be				Aircraft will generally only hold for the minimum amount of	Aircraft will generally only hold for the minimum amount of	Aircraft will generally only hold for the minimum amount of		Although the introduction of an ATZ may result in the re-
		Qualitative	flown at optimum aircraft performance and represents the most direct flight path, minimising track miles and emissions. The MAP represents the minimum practicable track miles	flown at optimum aircraft performance and represents the mos direct flight path, minimising track miles and emissions. The MAP is slightly longer than the previous option. The MAP is an	be flown at optimum aircraft performance and represents	be flown at optimum aircraft performance and represents the most direct flight path, minimising track miles and emissions. This option will be slightly longer than the	necessary, so there is a limited greenhouse gas impact.	time necessary. However, the NDB Hold may be used for training purposes, hence increasing airborne time and track	time necessary. However, the NDB Hold may be used for	time necessary. However, the NDB Hold may be used for training purposes, hence increasing airborne time and track	likelihood of aircraft requiring avoidance action which will	routing of some GA traffic in the local area, it is not likely to significantly increase the number of track miles flown with minimal impact on emissions. It may lead to GA aircraft
			flown. The MAP is an emergency procedure seldom used, but by its nature may require maximum engine power setting.	emergency procedure seldom used, but by its nature may require maximum engine power setting. More efficient profile	minimum practicable track miles flown. The MAP is an emergency procedure seldom used, but by its nature may	previous options due to the increased height profile. The Missed Approach Procedure represents the minimum		have a greater impact than the Do Minimum option.	have a greater impact than the Do Minimum option.	have a greater impact than the Do Minimum option.		flying at a higher altitude, thereby reducing emissions. Possible small positive impact to the Do Minimum option if
			More efficient profile should result in less impact than the Do Minimum option.	should result in less impact than the Do Minimum option.	require maximum engine power setting. More efficient profile should result in less impact than the Do Minimum online.	practicable track miles flown. The MAP is an emergency procedure seldom used, but by its nature may require maximum engine power setting. More efficient profile						GA fly at a higher altitude.
						should result in less impact than the Do Minimum option.						
Wider Society	Capacity and resilience	Initial Options Appraisal:	This procedure has been designed in consultation with NATS	This procedure has been designed in consultation with NATS and	This procedure has been designed in consultation with NATS	This procedure has been designed in consultation with NAT'	The Do Nothing option will have no impact on the capacity	This notion will have no impact on the canacity and	This option will have no impact on the capacity and	This option will have no impact on the capacity and	This option will have no impact on the capacity and	This option will have no impact on the capacity and
		Qualitative	and the FASI-S programme, in accordance with the UK Airspace Modernisation Strategy. This option enables a consistent	the FASI-S programme, in accordance with the UK Airspace Modernisation Strategy. This option enables a consistent	and the FASI-S programme, in accordance with the UK Airspace Modernisation Strategy. This option enables a	and the FASI-S programme, in accordance with the UK Airspace Modernisation Strategy. This option enables a	and resilience of the overall national airspace infrastructure.		resilience of the overall national airspace infrastructure. No change to the Do Minimum option.	resilience of the overall national airspace infrastructure. No change to the Do Minimum option.	resilience of the overall national airspace infrastructure.	resilience of the overall national airspace infrastructure. No change to the Do Minimum option.
			approach to aircraft arriving from the airway system. This enables increased capacity, efficiency and reduced track mileage	approach to aircraft arriving from the airway system. This enables increased capacity, efficiency and reduced track mileage	consistent approach to aircraft arriving from the airway system. This enables increased capacity, efficiency and reduced track mileage.	consistent approach to aircraft arriving from the airway system. This enables increased capacity, efficiency and reduced track mileage.						
General Aviation	Acres	Initial Ontions Appraisal:	No changes are proposed to the parameters of the current	No changes are proposed to the parameters of the current	No changes are proposed to the parameters of the current	No changes are proposed to the parameters of the current	No changes are proposed to the parameters of the current	No changes are proposed to the parameters of the current	No change are proposed to the parameters of the current	No changes are proposed to the parameters of the current	No changer are proposed to the parameters of the current	The introduction of an ATZ will have an impact on GA
		Qualitative	airspace structure around Manston Airport and therefore no change to airspace access is predicted.	airspace structure around Manston Airport and therefore no change to airspace access is predicted.	airspace structure around Manston Airport and therefore no change to airspace access is predicted.			airspace structure around Manston Airport and therefore no change to airspace access is predicted. No change to the Do	airspace structure around Manston Airport and therefore no change to airspace access is predicted. No change to the Do	airspace structure around Manston Airport and therefore no change to airspace access is predicted. No change to the Do	airspace structure around Manston Airport and therefore no change to airspace access is predicted.	o access. If this option is taken forward, GA pillots would be required to contact ATC and request permission to enter the
								Minimum option.	Minimum option.	Minimum option.		ATZ. Any pilots who are unwilling or unable to do so cannot enter the ATZ, restricting their airspace access, compared to the existing airspace arrangements.
General Aviation / commercial airlines	Economic impact from increased effective capacity	Initial Options Appraisal: Qualitative	The introduction of PBN procedures coordinated with NATS and other FASI-S sponsors will contribute to the delivery of associated benefits including increased effective capacity	The introduction of PBN procedures coordinated with NATS and other FASI-S sponsors will contribute to the delivery of associated benefits including increased effective capacity which	The introduction of PBN procedures coordinated with NATS and other FASI-S sponsors will contribute to the delivery of associated benefits including increased effective capacity	The introduction of PBN procedures coordinated with NATS and other FASI-S sponsors will contribute to the delivery of associated benefits including increased effective capacity	The Do Nothing option could have a positive economic benefit to the area giving GA aircraft the flexibility to hold while waiting clearance to land at the airport, rather than	No change to the Do Minimum option.	No change to the Do Minimum option.	No change to the Do Minimum option.	The economic impact of no regulated airspace will be a potential increase in aircraft fuel costs due to avoidance action and additional track mileage required by aircraft to	The economic impact of an ATZ will be realised as movements will be handled in a more efficient way, increasing effective capacity at the airport. This will be a
	Capacity		which is predicted to have direct and indirect economic benefits associated with an increase in both air transport and	is predicted to have direct and indirect economic benefits associated with an increase in both air transport and GA	which is predicted to have direct and indirect economic benefits associated with an increase in both air transport	which is predicted to have direct and indirect economic benefits associated with an increase in both air transport	landing elsewhere.				avoid conflicts.	positive benefit over the Do Minimum option.
			GA movements.	movements.	and GA movements.	and GA movements.						
General Aviation / commercial airlines	Fuel burn	Initial Options Appraisal:	Flown at optimum aircraft performance and with continuous descent profile to minimise fuel burn. The MAP minimises the	Flown at optimum aircraft performance and with continuous descent profile to minimise fuel burn. The MAP is slightly	Flown at optimum aircraft performance and with continuous descent profile to minimise fuel burn. The MAP	The procedure incorporates a continuous descent profile, to be flown at optimum aircraft performance and represents		Aircraft will generally only hold for the minimum amount of time necessary. However, the NDB Hold may be used for		Aircraft will generally only hold for the minimum amount of time necessary. However, the NDB Hold may be used for	Without any regulated airspace, there is an increased likelihood of aircraft having to carry out avoidance action or	Aircraft within an ATZ will be handled in a far more efficien r manor, reducing the overall track mileage and fuel burn
			number of track miles flown. The MAP is an emergency procedure requiring maximum engine power settings but it is	further than the previous option with an associated increase in fuel burn. The MAP is an emergency procedure requiring	minimises the number of track miles flown. The MAP is an emergency procedure requiring maximum engine power	the most direct flight path, minimising fuel burn This option will be slightly longer than the previous options due to the		training purposes, hence increasing airborne time and track miles flown resulting in an increase in fuel used. This could	training purposes, hence increasing airborne time and track miles flown resulting in an increase in fuel used. This could	training purposes, hence increasing airborne time and track miles flown resulting in an increase in fuel used. This could	fly greater track mileage to avoid conflicts, which will have an impact on fuel burn.	associated with any potential 'see and avoid' manoeuvres required by VFR flights to maintain safe separation. Fuel
			typically rarely used. More efficient profile should result in less impact than the Do Minimum option.	maximum engine power settings but it is typically rarely used. More efficient profile should result in less impact than the Do Minimum option.	settings but it is typically rarely used. More efficient profile should result in less impact than the Do Minimum option.	increased height profile. The Missed Approach Procedure represents the minimum practicable track miles flown. The MAP is an emergency procedure requiring maximum engine		have a greater impact than the Do Minimum option.	have a greater impact than the Do Minimum option.	have a greater impact than the Do Minimum option.		burn may increase for some GA traffic who re-route to avoid the ATZ, but this is not likely to be a significant increase. It may lead to GA aircraft flying at a higher
						power settings but it is typically rarely used. More efficient profile should result in less impact than the Do Minimum						altitude, thereby reducing fuel burn. Possible small positive impact to the Do Minimum option if GA fly at a higher
						option.						altitude.
Commercial airlines	Training costs	Initial Options Appraisal:	There will be no additional training costs required for	There will be no additional training costs required for	There will be no additional training costs required for	There will be no additional training costs required for		The NDB Hold option relates only to GA aircraft so there will			There will be no additional training costs associated with	There are no additional training costs associated with this
		dramanag	commercial operators flying PBN routes or procedures.	commercial operators flying PBN routes or procedures.	commercial operators flying PBN routes or procedures.	commercial operators flying PBN routes or procedures.	be no additional training costs required for commercial operators. There would be no training costs for GA associated with the Do Minimum option.	be no additional training costs required for commercial operators. If used for training purposes, implementing this option could increase training costs for GA.	be no additional training costs required for commercial operators. If used for training purposes, implementing this option could increase training costs for GA.		the Do Minimum option.	option. No change to the Do Minimum option.
Commercial airlines	Other costs	Initial Options Appraisal:	The availability of approved procedures should lead to fewer minima related diversions and associated costs. Other costs to	The availability of approved procedures should lead to fewer minima related diversions and associated costs. Other costs to	The availability of approved procedures should lead to fewer minima related diversions and associated costs.	The availability of approved procedures should lead to fewer minima related diversions and associated costs.	The NDB Hold option relates only to GA aircraft so there will be no additional costs required for commercial or sentences.	The NDB Hold option relates only to GA aircraft so there will be no additional costs required for commercial operators.	The NDB Hold option relates only to GA aircraft so there will be no additional costs required for commercial operators.	The NDB Hold option relates only to GA aircraft so there will be no additional costs required for commercial operators.	There will be no additional other costs imposed on commercial aviation associated with the Do Minimum	There will be no additional other costs imposed on commercial aviation associated with this option. No change
			operators may include updates to aircraft Flight Management Systems (FMS) and navigation databases. Any additional costs	operators may include updates to aircraft Flight Management Systems (FMS) and navigation databases. Any additional costs	Other costs to operators may include updates to aircraft Flight Management Systems (FMS) and navigation	Other costs to operators may include updates to aircraft Flight Management Systems (FMS) and navigation	required to commercial operators.	response to commercial operators.	responses no commercial operators.	required to commercial operators.	option.	to the Do Minimum option.
			are likely to be less than those associated with the Do Minimum option.	are likely to be less than those associated with the Do Minimum option.	databases. Any additional costs are likely to be less than those associated with the Do Minimum option.	databases. Any additional costs are likely to be less than those associated with the Do Minimum option.						
Airport / Air navigation service provider	Infrastructure costs	Initial Options Appraisal: Qualitative		There will be no additional infrastructure costs associated with the introduction of PBN routes or procedures. No change from the Do Minimum option.		There will be no additional infrastructure costs associated with the introduction of PBN routes or procedures. No change from the Do Minimum option.	the Do Minimum option as a direct result of this ACP over	There will be no additional infrastructure costs associated with the introduction of an NDB Hold over and above the costs of reopening Manston Airport as a NSIP. No change	There will be no additional infrastructure costs associated with the introduction of an NDB Hold over and above the costs of reopening Manston Airport as a NSIP. No change	There will be no additional infrastructure costs associated with the introduction of an NDB Hold over and above the costs of reopening Manston Airport as a NSIP. No change	There are no additional infrastructure costs associated with the Do Minimum option.	There will be no additional infrastructure costs imposed on commercial aviation associated with this option. No chang to the Do Minimum option.
								from the Do Minimum option.	from the Do Minimum option.	from the Do Minimum option.		
Airport / Air	Operational costs	Initial Options Appraisal:	The operational costs associated with implementing PBN	The operational costs associated with implementing PBN	The operational costs associated with implementing PBN	The operational costs associated with implementing PBN	There will be no additional routine operational costs	There will be no additional operational costs associated with	There will be no additional operational costs associated with	There will be no additional operational costs associated with the introduction of an NDB Hold over and above the costs of	There are no additional operational costs associated with	There are no additional operational costs associated with
navigation service provider		Qualitative	procedures relate to IFP design, validation (ground and airborne), safety assessment, airspace change and consultation, certification and publication. Once implemented	procedures relate to IFP design, validation (ground and airborne), safety assessment, airspace change and consultation, certification and publication. Once implemented, the costs of	procedures relate to IFP design, validation (ground and airborne), safety assessment, airspace change and consultation, certification and publication. Once	procedures relate to IFP design, validation (ground and airborne), safety assessment, airspace change and consultation, certification and publication. Once	associated with implementing the Do Minimum option over and above the operational costs of reopening Manston Airport as a NSIP.	the introduction of an NDB Hold over and above the costs of reopening Manston Airport as a NSIP. No change from the Do Minimum option.	the introduction of an NDB Hold over and above the costs o reopening Manston Airport as a NSIP. No change from the Do Minimum option.	the introduction of an NDB Hold over and above the costs of reopening Manston Airport as a NSIP. No change from the Do Minimum option.	use DO Minimum option.	this option. No change to the Do Minimum option.
			the costs of ownership of PBN procedures is very low, requiring maintenance of the procedure on a five yearly basis.	ownership of PBN procedures is very low, requiring maintenanc of the procedure on a five yearly basis.	implemented, the costs of ownership of PBN procedures is very low, requiring maintenance of the procedure on a five	implemented, the costs of ownership of PBN procedures is very low, requiring maintenance of the procedure on a five						
Airport / Air	Deployment costs	Initial Options Appraisal:	There will be no additional deployment costs associated with the introduction of PBN procedures. No change from the Do	There will be no additional deployment costs associated with the introduction of PBN procedures. No change from the Do	yearly basis. There will be no additional deployment costs associated with the introduction of SSN procedurer. No change from	yearly basis. There will be no additional deployment costs associated with the introduction of SBN procedurer. No chappe from	There will be no additional deployment costs associated with implementing the De Minimum option over and above	There will be no additional deployment costs associated with the introduction of an NDB Hold over and above the	There will be no additional deployment costs associated with the introduction of an NDB Hold over and above the	There will be no additional deployment costs associated with the introduction of an NDB Hold over and above the	There are no additional deployment costs associated with	There are no additional deployment costs associated with this option. No change to the Do Minimum option.
navigation service provider		Qualitative	the introduction of PBN procedures. No change from the Do Minimum option.	Introduction of PBN procedures. No change from the Do Minimum option.	with the introduction of PBN procedures. No change from the Do Minimum option.	with the introduction of PBN procedures. No change from the Do Minimum option.	with implementing the Do Minimum option over and above the operational costs of reopening Manston Airport as a NSIP.	with the introduction of an NDB Hold over and above the costs of reopening Manston Airport as a NSIP. No change from the Do Minimum option.	with the introduction of an NDB Hold over and above the costs of reopening Manston Airport as a NSIP. No change from the Do Minimum option.	with the introduction of an NDB Hold over and above the costs of reopening Manston Airport as a NSIP. No change from the Do Minimum option.	the Do Minimum option.	орион. но снинде to the во мinimum option.
Safety Assessment	Safety Assessment	Initial Options Appraisal:	No significant safety implications were identified during the	No significant safety implications were identified during the	The safety assessment identified significant safety	The safety assessment identified significant safety	No significant safety implications were identified during the	Safety conflict with commercial aircraft executing a MAP.	Safety conflict with commercial aircraft executing a MAP.	Safety conflict with commercial aircraft executing a MAP.	Without any regulated airspace at the airport, there would	No significant safety implications were identified during the
		qualitative	Offshore Windfarm. Potential loss of aircraft identification in Windfarm clutter, requiring implementation of technical or	safety assessment. The Hold is positioned overhead the Thanet Offshore Windfarm. Potential loss of aircraft identification in Windfarm clutter, requiring implementation of technical or	implications relating to the position of the south eastern Initial Approach Segment (conflict with gliders in Class G airspace with the Transition procedure) and the position of	implications relating to the position of the south eastern Initial Approach Segment (conflict with gliders in Class G airspace with the Transition procedure) and the position of	sarring assessment.	aircraft executing a MAP. Possible wake turbulence risk to VFR traffic in the hold. Mitigated by not allowing the Hold	aircraft executing a MAP. Possible wake turbulence risk to VFR traffic in the hold. Mitigated by not allowing the Hold	Not possible to deconflict traffic in the overhead Hold from aircraft executing a MAP. Possible wake turbulence risk to VFR traffic in the hold. Mitigated by not allowing the Hold	stages of flight. Commercial aircraft will be unable to carry	safety assessment. Introducing an ATZ will have a positive safety impact on operations at Manston Airport.
			operational mitigation for the impact of wind turbine generators on PSR.	operational mitigation for the impact of wind turbine generators on PSR.	the Hold (close to Southend CTAs and overhead the Kentish Flats Offshore Windfarm). These issues have been	the Hold (close to Southend CTAs and overhead the Kentish Flats Offshore Windfarm). These issues have been		to be used by GA aircraft when aircraft are inbound on an approach procedure.	to be used by GA aircraft when aircraft are inbound on an approach procedure.	to be used by GA aircraft when aircraft are inbound on an approach procedure.		
						mitigated at the Design Principles Evaluation stage by the removal of this Initial Approach Segment for consideration and the Hold position will be moved further east. There are						
					no further significant safety implications for this option.	no further significant safety implications for this option.						