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Húsi FBSR Flugvallarvegi 7  
101 Reykjavík

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**Nr. máls: M-03614/AIG-27**

RNSA beinir eftirfarandi tillögu í öryggisátt til Isavia:  
M-03614 T02

Að Isavia endurskoði verklagsreglur flugumferðarstjóra varðandi heimildar til aksturs í brautarstöðu og heimildar til flugtaks þegar tvær flugbrautir sem skerast eru í notkun.

Verklagsreglur flugumferðarstjóra á Íslandi eru birtar í Manual of Operations (MANOPS) Air Traffic Services Procedures á innra neti Isavia og sem sérreglur í Unit Directives fyrir viðeigandi starfsstöð. Reglur eru kynntar opinberlega í handbók flugmanna (AIP ICELAND) á vef Samgöngustofu.

Ytri kröfur sem farið er eftir eru úr reglugerð 787/2010 þar sem 4. grein vísar til krafna og leiðbeiningarefnis í viðauka 11. Einnig er vísað í leiðbeinandi efni útgefið af Alþjóðaflugmálastofnuninni (ICAO) og krafna og leiðbeiningarefnis Evrópustofnunar um öryggi í flugleiðsögu (EUROCONTROL). Þau skjöl vísa síðan oft áfram í önnur skjöl. Flestar reglurnar sem snerta verklagsreglur varðandi heimildir frá flugturni koma þó úr ICAO PANS ATM (Doc 4444).

Þegar MANOPS var gefinn út af Flugmálastjórn Íslands í fyrsta sinn árið 1994 var MANOPS Kanada hafður til hliðsjónar. Íslenski MANOPS hefur verið uppfærður tuttugu og þrisvar sinnum til að tryggja að verið sé að fylgja þeim reglum sem gilda, en margar reglur sem unnar voru upp úr þeim kanadíska eru enn í gildi í hinum íslenska MANOPS enda metið að þær hafi fullan stuðning í ytri kröfum. Einnig gefur Samgöngustofa (áður Flugmálastjórn) í nokkrum tilfellum leyfi fyrir notkun verklagsreglna sem ekki er að finna í ytri kröfum ef lögð eru fram rök fyrir því að þær séu jafn góðar eða betri og sambærilegar reglur ICAO/Eurocontrol. Í einhverjum tilfellum gilda strangari reglur en ytri kröfur segja til um.

Í viðhengi A er samantekt þar sem farið er yfir verklagsreglur flugumferðarstjóra varðandi heimildar til aksturs í brautarstöðu og heimildar til flugtaks þegar tvær flugbrautir sem skerast eru í notkun. Greint er á hverju íslensku verklagsreglurnar byggja.

Í síþjálfun flugumferðarstjóra í flugturnum á Íslandi árið 2018 var farið yfir *Stöðluð orðtök og baklestur* og *Simultaneous Intersecting Runway operations*.

## Niðurstaða

Við endurskoðun kom í ljós að verklagsreglur flugumferðarstjóra á Íslandi, varðandi heimildir til aksturs í brautarstöðu og heimildir til flugtaks þegar tvær flugbrautir sem skerast eru í notkun, eru í samræmi við ytri kröfur.

Fyrirhugað er þó að lagfæra fjórar villur við næstu útgáfu MANOPS haustið 2019:

1. Grein 303.1: breyta greininni þannig að tekin eru út orðin *“in plain, concise language”* og sett í staðin í enda greinarinnar orðin: *“using standard phraseology if available or in plain, clear and concise language”* til að leggja áherslu á að flugumferðarstjóri noti staðlað orðfæri ef hægt er (eins og fyrir er lagt í MANOPS Appendix A 2.1 og Appendix B 2.1 og Annex 10 Vol II greinum 5.1.1.1 og 5.2.1.9). Setjum í MANOPS 303.1 Phraseology dæmi úr DOC 4444 um staðlað orðfæri í stað dæma um „plain, concise language“.
2. Grein 303.3: Bæta við orðunum *“and pilot”* í enda greinar.
3. Grein 352.5: Taka út orðið *arriving* í *“an arriving aircraft”* þannig að eftir standi *“an aircraft”* sbr. undirgreinarnar sem fjalla um að seinni vélin geti verið *arriving* eða *departing aircraft*.
4. Appendix B 3.4.7 Akstur, liður t) AKTU TIL BIÐSTÖÐU: breyta orðinu Biðstaða í Biðsvæði í samræmi við orðabanka íslenskrar málstöðvar

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## Appendix A

MANOPS	Ytri kröfur
303 TAXI INFORMATION	
<p><b>301.3</b> Aerodrome controllers shall maintain a continuous watch on all flight operations on and in the vicinity of an aerodrome as well as vehicles and personnel on the manoeuvring area. Watch shall be maintained by visual observation, augmented in low visibility conditions by an ATS surveillance system when available. Traffic shall be controlled in accordance with the procedures set forth herein and all applicable traffic rules specified by the appropriate ATS authority. If there are other aerodromes within a control zone, traffic at all aerodromes within such a zone shall be coordinated so that traffic circuits do not conflict.</p>	<p>DOC 4444 7.1.1.2 orðrétt</p>
<p><b>303.1</b> Issue taxi authorizations and instructions in plain, concise language to aircraft taxiing on the manoeuvring area. (P) <i>303.1 Phraseology:</i> <i>TURN NOW or TURN LEFT/RIGHT.</i> <i>CONTINUE or CONTINUE TAXIING.</i> <i>TAXI ON RUNWAY/TAXIWAY (number).</i> <i>HOLD or HOLD SHORT OF RUNWAY/TAXIWAY (number) or HOLD ON RUNWAY/TAXIWAY (number) or HOLD (direction) OF RUNWAY/TAXIWAY (number).</i> <i>TAXI TO POSITION.</i></p> <p><b>Appendix A 3.4.7</b> Taxi procedures ... for departure c) TAXI TO HOLDING POINT [number] [RUNWAY (number)] [HOLD SHORT OF RUNWAY (number) (or CROSS RUNWAY (number))] [TIME (time)]; ... where detailed taxi instructions are required e) TAXI TO HOLDING POINT [number] [RUNWAY (number)] VIA (specific route to be followed) [TIME (time)] [HOLD SHORT OF RUNWAY (number) (or CROSS RUNWAY (number))]; ... where aerodrome information is not available from an alternative source such as ATIS f) TAXI TO HOLDING POINT [number] (followed by aerodrome information as applicable) [TIME (time)]; g) TAKE (or TURN) FIRST (or SECOND) LEFT (or RIGHT); h) TAXI VIA (identification of taxiway); i) TAXI VIA RUNWAY (number); j) TAXI TO TERMINAL (or other location, e.g. GENERAL AVIATION AREA) [STAND (number)]; ... for helicopter operations</p>	<p>Doc 9432 4.5.2 Since misunderstandings in the granting and acknowledgement of take-off clearances can result in serious consequences, care should be taken to ensure that the phraseology employed during the taxi manoeuvres cannot be interpreted as a clearance to enter the runway or to take-off.</p> <p>Til að leggja frekari áherslu á að flugumferðarstjórar noti staðlað orðfæri ef hægt er (eins og fyrir er lagt í MANOPS Appendix A 2.1 og Appendix B 2.1 og Annex 10 Vol II greinum 5.1.1.1 og 5.2.1.9). breytum við 303.1 greininni þannig að við tökum út orðin “in plain, concise language” og setjum í staðin í enda greinarinnar orðin: “using standard phraseology if available or in plain, clear and concise language” svo eftir stendur: 303.1 Issue taxi authorizations and instructions in plain, concise language to aircraft taxiing on the manoeuvring area using standard phraseology if available or in plain, clear and concise language. (P) 303.1 Phraseology eru dæmi um plain and concise language en ekki um orðtök úr ytri kröfum líkt og Appendix A 3.4.7 sem er í samræmi við Doc 4444 12.3.4.7 Munum breyta MANOPS 303.1 Phraseology og munum gefa dæmi um staðlað orðfæri í stað “plain and concise language” (yfírstrikun</p>

- l) AIR TAXI TO (or VIA) (location or routing as appropriate) [CAUTION (dust, blowing snow, loose debris, taxiing light aircraft, personnel, etc.)];
- m) AIR TAXI VIA (direct, as requested, or specified route) TO (location, heliport, operating or movement area, active or inactive runway). AVOID (aircraft or vehicles or personnel);
- m) AIR TAXI VIA (direct, as requested, or specified route) TO (location, heliport, operating or movement area, active or inactive runway). AVOID (aircraft or vehicles or personnel);
- ... after landing
- o) BACKTRACK APPROVED;
- p) BACKTRACK RUNWAY (number);
- ... general \*
- r) TAXI STRAIGHT AHEAD;
- s) TAXI WITH CAUTION;
- t) GIVE WAY TO (description and position of other aircraft);
- w) TAXI INTO HOLDING BAY;
- x) FOLLOW (description of other aircraft or vehicle);
- y) VACATE RUNWAY;
- aa) EXPEDITE TAXI [(reason)];
- cc) [CAUTION] TAXI SLOWER [reason];

#### Appendix B 3.4.7 Akstur

- ...til brottfarar
- c) AKTU TIL BIÐSTAÐAR [númer] [BRAUT (númer)] [KLUKKA (mínútur)],
- ...þar sem nákvæmra akstursleiðbeininga er þörf
- e) AKTU (tilgreindu leið) AÐ BIÐSTAÐ [númer] [BRAUT (númer)] [KLUKKA (mínútur)],
- ...þar sem flugvallarupplýsingar fást ekki með aðferðum eins og ATIS
- f) AKTU AÐ BIÐSTAÐ [númer] (síðan viðeigandi flugvallarupplýsingar) [KLUKKA (mínútur)],
- g) AKTU (eða BEYGÐU) FYRSTU (eða AÐRA) BRAUT TIL VINSTRI (eða HÆGRI)
- h) AKTU (auðkenni akbrautar),
- i) AKTU BRAUT (númer),
- j) AKTU AÐ FLUGSTÖÐ (eða öðrum stað t.d. SVÆÐI ALMANNAFLUGS) [STÆÐI (númer)],
- ...eftir lendingu
- l) AKTU TIL BAKA
- m) AKTU TIL BAKA FLUGBRAUT (númer),
- ...almennt
- o) AKTU BEINT ÁFRAM,
- p) AKTU VARLEGA,
- q) VÍKTU FYRIR (lýsing og staðsetning hins loftfarsins),
- t) AKTU TIL BIÐSTÖÐU,
- u) FYLGDU (lýsing annars loftfars eða ökutækis),
- v) AKTU ÚT AF FLUGBRAUT,
- x) HRAÐAÐU AKSTRI [(ástæða)],
- z) [VARÚÐ] AKTU HEGGAR [ÁSTÆÐA],

merkir að texti fellur út og rauður texti þýðir að nýr texti bætist inn):

#### 303.1 Phraseology:

~~TURN NOW or TURN LEFT/RIGHT.~~

~~CONTINUE or CONTINUE TAXIING.~~

**TAXI TO HOLDING POINT [RUNWAY (number)]**

~~TAXI ON VIA RUNWAY (number)/TAXIWAY (identification of taxiway). (number).~~

~~HOLD or HOLD SHORT OF RUNWAY/TAXIWAY (number) or~~

~~HOLD **SHORT OF ON** RUNWAY/TAXIWAY (number) or HOLD (direction) OF RUNWAY/TAXIWAY (number).~~

~~TAXI TO POSITION.~~

MANOPS Appendix A og B eru úr Doc 4444  
12.3.4.7 TAXI PROCEDURES orðrétt í  
enskunni og þýtt á íslensku í Appendix B.

Við íslenskun orðtaka í MANOPS Appendix B er ekki alveg ljóst við hvað var stuðst þar eð langt er síðan þýðingar voru unnar. Líklegt má telja að stuðst hafi verið við málhefðir sem myndast hafa við samskipti flugumferðarstjóra og flugmanna. Einungis hafa verið gerðar smávægilegar lagfæringar á þýðingum og þá stuðst við Flugorðasafn gefið út af Íslenskri Málnefnd 1993. Ritstjóri Jónína Margrét Guðnadóttir. Einnig eru notuð þýdd orð í íslenskum reglugerðum þegar við á. Virðist ekki orðrétt þýðing heldur tekið tillit til eðlilegrar orðaraðar í íslensku án þess að bæta inn aukaorðum.

Breytum lið t) þannig að orðið BIÐSTAÐA verði BIÐSVÆÐI í samræmi við þýðingu orðabanka íslenskrar málstöðvar.

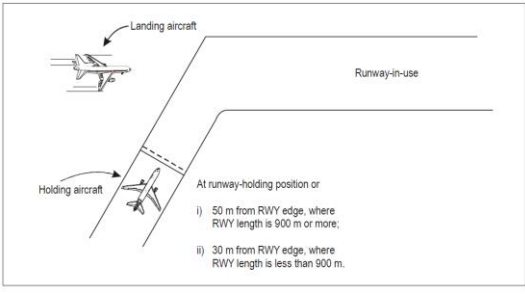
t) AKTU TIL **BIÐSVÆÐIS** BIÐSTÖÐU,

<p><b>302.4</b> You may suggest, or approve a request for another runway provided: (R) A you or the aircraft will gain an operational advantage, and B you clearly indicate the wind direction and speed to the aircraft</p>	<p>DOC 4444 7.2.1. Note.— Separate or multiple runways may be designated runway-in-use for arriving aircraft and departing aircraft.</p> <p>302.4 er orðrétt úr MANOPS Kanada</p>
<p><b>303.2</b> Do not use the word “cleared” in conjunction with authorizations or instructions for aircraft to taxi or for equipment, vehicle or personnel operations. (N) <i>303.2 Note:</i> <i>Misinterpretation could be caused by a clearance or instruction, such as: - taxi to position behind the landing aircraft; - cleared via taxiway alfa for take-off on runway zero three; or - cleared to runway one four via taxiway Lima, hold short of runway two zero.</i></p>	<p>Doc 9432 4.5.2 Since misunderstandings in the granting and acknowledgement of take-off clearances can result in serious consequences, care should be taken to ensure that the phraseology employed during the taxi manoeuvres cannot be interpreted as a clearance to enter the runway or to take-off. Ávallt er orðalagið “TAXI” notað þegar flugvél er gefin akstursheimild, aldrei orðið “CLEARED”. Sjá má staðlað orðfæri um “TAXI” í DOC 4444 12.3.4.7 og 12.3.4.9. DOC 4444 grein 12.2.6, orðið “PROCEED” er notað fyrir önnur farartæki en flugvélar. Þessar greinar eru speglaðar í MANOPS Appendix A greinum 2.6 og greinum 3.4.7 og 3.4.9. Þetta á einnig við á íslensku í MANOPS Appendix B. Þar er ekki notað orðfærið “heimilt”, aðeins orðið “aktu” fyrir flugvél og raunar einnig fyrir farartæki sem er að aka um flugvöllinn. Sjá má þetta í MANOPS Appendix B grein 2.3 og notkun á orðfærinu “aktu” í greinum 3.4.7 og 3.4.9.</p> <p>Grein 303.2 er orðrétt úr MANOPS Kanada</p>
<p><b>303.3</b> Only use conditional clearances for the movement of aerodrome traffic if both aircraft/vehicles are continuously visible from the tower. (N)(R) <i>303 Note 1:</i> <i>Misinterpretation could be caused by a conditional clearance or instruction such as:</i> <i>- taxi to position behind the landing aircraft; or</i> <i>- proceed across runway one two after departing B757.</i> <b>303 .3 Note 2:</b> <i>When the conditional clearance involves a departing aircraft and an arriving aircraft, it is important that the departing aircraft correctly identifies the arriving aircraft on which the conditional clearance is based. Reference to the arriving aircraft type may be insufficient and it may be necessary to add a description of the colour or the company name to ensure correct identification</i> <b>303.3 Reference:</b> <i>Conditional phrases, Appendix A, 2.7.</i></p>	<p>Doc 9432 4.5.7, Conditional clearances shall not be used for movements affecting the active runway(s), except when the aircraft or vehicles concerned are seen by both the controller and pilot.</p> <p>Grein 303.3: Bætum við orðunum “<i>and pilot</i>” í enda greinar, svo greinin verður svona: <i>Only use conditional clearances for the movement of aerodrome traffic if both aircraft/vehicles are continuously visible from the tower and pilot.</i> (N)(R)</p> <p>303.3 Note 1: dæmi um orðanotkun sem gæti valdið misskilningi. – er í MANOPS Kanada, þó ekki orðrétt. 303.3 Note 2: er úr Doc 9432 4.5.7 miðhluti þeirrar greinar, orðrétt</p>

<p><b>Appendix A, 2.7:</b> Conditional phrases, such as "behind landing aircraft" or "after departing aircraft", shall not be used for movements affecting the active runway(s), except when the aircraft or vehicles concerned are seen by the appropriate controller and pilot. The aircraft or vehicle causing the condition in the clearance issued shall be the first aircraft/vehicle to pass in front of the other aircraft concerned. In all cases a conditional clearance shall be given in the following order and consist of: i) identification; ii) the condition; iii) the clearance; and iv) brief reiteration of the condition, for example: "SAS 941, BEHIND DC9 ON SHORT FINAL, LINE UP BEHIND". <i>Note. - This implies the need for the aircraft receiving the conditional clearance to identify the aircraft or vehicle causing the conditional clearance.</i></p> <p><b>Appendix B 2.4</b> Skilyrt orðtök, eins og “eftir loftfari að lenda”, eða “eftir loftfari í flugtaki”, skal ekki nota vegna hreyfinga varðandi flugbraut/ir í notkun, nema þegar hlutaðeigandi flugumferðarstjóri og flugmaður sjá viðkomandi loftfar eða ökutæki. Skilyrt heimild skal ætíð vera samkvæmt eftirfarandi efni og röð: i) auðkenni * ii) skilyrði (tilgreinið) * iii) heimildin * til dæmis: “SAS 941, eftir að DC9 sem er á stuttri lokastefnu er lent og komin framhjá, aktu í brautarstöðu “.</p> <p><b>Ath.-</b> Þetta bendir á nauðsyn þess, að loftfarið, sem fær hina skilyrtu heimild þekki loftfarið eða ökutækið sem er orsök skilyrðisins.</p> <p><b>Appendix B: 2.7:</b> Aðrar heimildir eða fyrirmæli, m.a. skilyrta heimildir, skal lesa til baka eða kvitta fyrir þannig að augljóst sé að móttakandi skilji þær og muni fara eftir þeim.</p> <p>Appendix B 3.4.10: ...skilyrt heimild ***i) (skilyrði) Í BRAUTARSTÖÐU, (stutt ítrekun á skilyrðum), *** Ákvæði vegna skilyrtra heimilda er að finna í gr. 2.7 APPENDIX A og í Manops 303.3</p>	<p>Appendix A 2.7 er orðrétt úr Doc 4444 12.2.7</p> <p>Appendix B 2.4 er þýðing á DOC 4444 12.2.7.</p> <p>Appendix B 2.7 fjallar um baklestur skilyrtra heimilda en orðtök í Appendix B 3.4.10 vísar í grein 303.3 og Appendix A 2.7.</p> <p>Appendix B 2.7 er þýðing á: Doc4444 4.5.7.5.1.1, Doc9432 2.8.3.6 Annex 11 3.7.3.1.1.</p>
<p><b>133.4</b> Read-back requirements have been introduced in the interests of flight safety. Safety-related parts of ATC clearances and instructions which are transmitted by voice shall be read back to the air traffic controller.</p>	<p>133.4 B: Doc4444 4.5.7.5.1.1, orðrétt Doc9432 2.8.3.6, orðrétt Annex 11 3.7.3.1.1, orðrétt.</p>

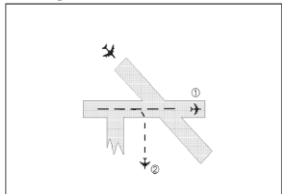


<p>A. The following items shall always be read back:</p> <ol style="list-style-type: none"> <li>1. ATC route clearances and any amendment thereto;</li> <li>2. clearances and instructions to enter, land on, take off from, hold short of, cross, taxi and backtrack on any runway; and</li> <li>3. runway-in-use, altimeter settings, SSR codes, level instructions, heading and speed instructions and, whether issued by the controller or contained in automatic terminal information service (ATIS) broadcasts, transition levels.</li> </ol> <p><b>B. Other clearances or instructions, including conditional clearances, shall be read back or acknowledged in a manner to clearly indicate that they have been understood and will be complied with.</b></p> <p>C. The controller shall listen to the readback to ascertain that the clearance or instruction has been correctly acknowledged and shall take immediate action to correct any discrepancies revealed by the readback.</p> <p>D. Voice readback of controller-pilot data link communications (CPDLC) messages is not required.</p>	
<p><b>303.4</b> Include the specific route if alternative taxi paths are available</p> <p><b>Appendix A 3.4.7</b> where detailed taxi instructions are required e) TAXI TO HOLDING POINT [<i>number</i>] [RUNWAY (<i>number</i>)] VIA (<i>specific route to be followed</i>) [TIME (<i>time</i>)] [HOLD SHORT OF RUNWAY (<i>number</i>) (or CROSS RUNWAY (<i>number</i>))]; <b>Appendix B 3.4.7</b> ...þar sem nákvæmra akstursleiðbeininga er þörf e) AKTU (tilgreindu leið) AÐ BIÐSTAÐ [númer] [BRAUT (númer)] [KLUKKA (mínútur)],</p>	<p>Doc 9432 4.5.2 Since misunderstandings in the granting and acknowledgement of take-off clearances can result in serious consequences, care should be taken to ensure that the phraseology employed during the taxi manoeuvres cannot be interpreted as a clearance to enter the runway or to take-off.</p> <p>Doc4444 7.6.3.1.1.1, Prior to issuing a taxi clearance, the controller shall determine where the aircraft concerned is parked. Taxi clearances shall contain concise instructions and adequate information so as to assist the flight crew to follow the correct taxi routes, to avoid collision with other aircraft or objects and to minimize the potential for the aircraft inadvertently entering an active runway. MANOPS 303.4 er árétting á MANOPS 334.2 Note 1 sem sýnd er hér í næsta dálki fyrir neðan.</p> <p>Appendix A og B 3.4.7 er úr Doc 4444 12.3.4.7 TAXI PROCEDURES... where detailed taxi instructions are required e) TAXI TO HOLDING POINT [<i>number</i>] [RUNWAY (<i>number</i>)] VIA (<i>specific route to be followed</i>) [TIME (<i>time</i>)] [HOLD SHORT OF RUNWAY (<i>number</i>) (or CROSS RUNWAY (<i>number</i>))];</p>

<p><b>334.2 Note 1:</b>  <i>Prior to issuing a taxi clearance, the controller shall determine where the aircraft concerned is parked. Taxi clearances shall contain concise instruction and adequate information so as to assist the flight crew to follow the correct taxi routes, to avoid collision with other aircraft or objects and to minimize the potential for the aircraft inadvertently entering an active runway.</i></p>	<p>DOC 4444 7.6.3.1.1.1 orðrétt</p>
<p><b>303.5</b>          If workload permits, provide information concerning known traffic and obstructions to aircraft taxiing outside of the manoeuvring area: (N)(P)  <b>303.5 Note:</b>  <i>Movement of aircraft on the Apron is the responsibility of the pilot, aircraft operator or aerodrome management.</i>  <b>303.5 Phraseology:</b>  <i>TAXI AT YOUR DISCRETION [TRAFFIC (description)].</i></p>	<p>Strangari krafa. Grein er ekki í ytri kröfum          En greinin + P og N er í MANOPS Kanada 303.6</p>
<p><b>303.6</b>          If you consider it necessary, inform a taxiing aircraft that a portion of the manoeuvring area is not visible from the tower. (P) (N)  <b>303.6 Phraseology:</b>  <i>(area) NOT VISIBLE, TAXI AT YOUR DISCRETION.</i>  <b>303.6 Note:</b>  <i>This is intended to cover situations where your view of the manoeuvring area is obstructed by a physical condition other than weather phenomena.</i></p>	<p>Strangari krafa. Grein er ekki í ytri kröfum          Grein + P og N er í MANOPS Kanada 303.7</p>
<p><b>303.7</b>          Hold a taxiing aircraft, until traffic using the runway has passed the point at which the aircraft is holding:          A. at a runway holding position if one has been established,          B. at least 150 feet (50 m) from the edge of the runway if a runway holding position has not been established, or          C. at a sufficient distance from the edge of the runway to ensure that no hazard is created to arriving or departing aircraft.</p>	<p>Doc 4444 7.6.3.1.3.2, Aircraft shall not be permitted to line up and hold on the approach end of a runway-in-use whenever another aircraft is effecting a landing, until the landing aircraft has passed the point of intended holding.</p> <p>A) Doc 4444 7.6.3.1.3.1, Except as provided in 7.6.3.1.3.2 or as prescribed by the appropriate ATS authority, aircraft shall not be held closer to a runway-in-use than at a runway-holding position.</p> <p>B) Doc 4444 Figure 7-2 bls 7-10 sýnir bið 50 metra frá edge of runway</p>  <p>Figure 7-2. Method of holding aircraft (see 7.6.3.1.3.2)</p>



	<p>Svipuð grein er í MANOPS Kanada 352.9 B (en þeir nota 200 feet):  <i>Hold a taxiing aircraft, until traffic using the runway has passed the point at which the aircraft is holding:</i>  <i>A. at a taxi holding position, if one has been established;</i>  <i>B. at least 200 feet from the edge of the runway, unless other holding positions are established by markings or signs; or</i>  <i>C. at a sufficient distance from the edge of the runway to ensure that no hazard is created to arriving or departing aircraft, if it is not practicable to comply with A. or B.</i></p> <p><b>C) Strangari krafa. Ekki í ytri kröfum</b>  Svipuð grein er í MANOPS Kanada:  352.9 C:  C. at a sufficient distance from the edge of the runway to ensure that no hazard is created to arriving or departing aircraft, if it is not practicable to comply with A. or B.</p>
<b>345 LANDING AND ROLL-OUT MANOEUVRES</b>	DOC 4444 7.10.3 Landing and roll-out manoeuvres
<b>345.1</b> When necessary or desirable in order to expedite traffic, a landing aircraft may be requested to: A. hold short of an intersecting runway after landing; B. land beyond the touchdown zone of the runway; C. vacate the runway at a specified exit taxiway; D. expedite vacating the runway	DOC 4444 7.10.3.1 Orðrétt
<b>345.2</b> In requesting a landing aircraft to perform a specific landing and/or roll-out manoeuvre, the type of aircraft, runway length, location of exit taxiways, reported braking action on runway and taxiway, and prevailing meteorological conditions shall be considered. A HEAVY aircraft shall not be requested to land beyond the touchdown zone of a runway.	DOC 4444 7.10.3.2 Orðrétt
<b>345.3</b> If the pilot-in-command considers that he or she is unable to comply with the requested operation, the controller shall be advised without delay.	DOC 4444 7.10.3.3 Orðrétt
<b>345.4</b> When necessary or desirable, e.g. due to low visibility conditions, a landing or a taxiing aircraft may be instructed to report when a	DOC 4444 7.10.3.4 Orðrétt

<p>runway has been vacated. The report shall be made when the entire aircraft is beyond the relevant runway-holding position.</p>	
<p><b>352 ARRIVALS AND DEPARTURES</b></p>	<p>Strangari reglur. Grein 352 er að mestu úr kanadíska MANOPS 352 og hafa verið í notkun hér frá fyrstu útgáfa MANOPS</p>
<p><b>352.1</b> Use the following rationales when applying paragraphs in this section: A. Consider an aircraft doing touch-and-go as an arriving aircraft until it lands and thereafter as a departing aircraft. B. Consider an aircraft doing a stop-and-go as an arriving aircraft until it stops and thereafter as a departing aircraft. C. Consider an aircraft doing a low approach and overshoot as an arriving aircraft until it crosses the runway threshold or discontinues the approach and thereafter as a departing aircraft.</p>	<p>Greinin kemur úr Kanadíska MANOPS 352.1 orðrétt en C. liður orlítið öðruvísi (MANOPS Kanada nefnir ekki "overshoot"). Greinin er ekki orðrétt í ytri kröfum en eftirfarandi styður þó greinina.</p> <p>A. Doc 9432 4.7.5 "TOUCH AND GO", i.e. the aircraft lands, continues rolling and takes off, without stopping.</p> <p>B. Doc 9432 4.7.5 Orðskýring á touch and go "stop and go" er svipað í raun nema að vélin stoppar í stað þess að rúlla áfram án þess að stoppa.</p> <p>C. Doc 4444 12.3.4.16 LANDING CLEARANCE ... to make an approach along, or parallel to a runway, descending to an agreed minimum level f) CLEARED LOW APPROACH [RUNWAY (number)] [(altitude restriction if required) (go around instructions)];</p>
<p><b>352.4</b> Separate an arriving aircraft from another aircraft using an intersecting runway, or non-intersecting runway if flight paths intersect, by ensuring that the arriving aircraft does not cross the landing threshold or flight path of the other aircraft until one of the following conditions exists: A. A preceding departing aircraft has: (N)(R)(D) <i>352.4 A. Note:</i> <i>An aircraft doing a low approach and overshoot need not be considered an arriving/departing aircraft for the purposes of this paragraph provided other control action has been taken to ensure no danger of collision exists, for example: altitude restriction, heading/climb restriction.</i> <i>352.4 A. Reference:</i> Traffic Information: 351.3 (sjá grein neðst í þessum kassa)</p> 	<p>Strangari krafa. Ekki í ytri kröfum</p> <p>Greinin er í Kanadíska MANOPS 352.4 svo til orðrétt.</p>

1. passed the intersection or the flight path of the succeeding aircraft, or (R)
  2. turned to avoid any conflict
- B. A preceding arriving aircraft has: (D)
1. taxied off the landing runway,
  2. completed the landing roll and will hold short of the intersection or the flight path of the succeeding aircraft, or (N)

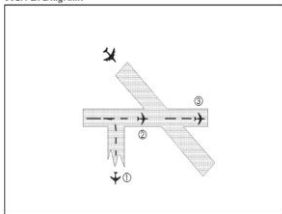
**352.4 B. 2. Note:**

*The preceding aircraft need not be stopped as long as:*

*A. it has decelerated to taxi speed before the succeeding aircraft crosses the landing threshold, and*

*B. it will not enter the runway or cross the flight path being used by the succeeding aircraft.*

352.4 B. Diagram:



3. passed the intersection or the flight path, of the succeeding aircraft. (R)

**352.4 B. 3. Reference:**

*Cautionaries: 716 (í þessari grein eru áskoranir um að fara varlega)*

**352.5**

Separate a departing aircraft from an arriving aircraft using an intersecting runway, or non-intersecting runway if flight paths intersect, by ensuring that the departure does not begin take-off roll until one of the following conditions exists:

A. A preceding departing aircraft has: (N)(R)(D)

1. passed the intersection,
2. crossed the departure runway, or
3. turned to avoid any conflict.

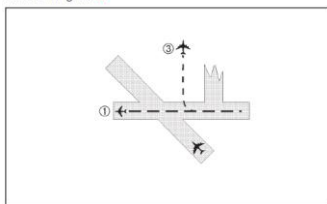
**352.5 A. Note:**

*On non-intersecting runways where flight paths intersect at a considerable distance from the runway, this paragraph need not apply provided other control action has been taken to ensure no danger of collision exists.*

**352.5 A. Reference:**

*Cautionaries: 716. (í þessari grein eru áskoranir um að fara varlega)*

352.5 A. Diagram 1:



Strangari krafa. Ekki í ytri kröfum

Greinin er í Kanadíska MANOPS 352.5 svo til orðrétt.

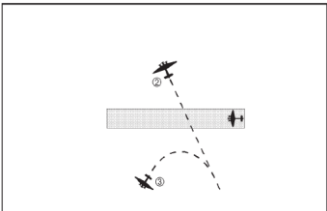
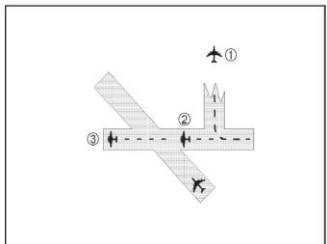
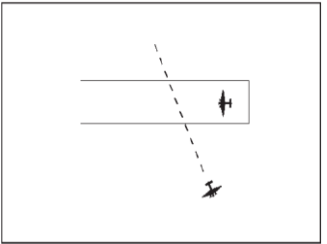
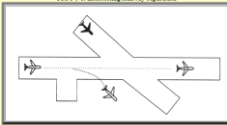
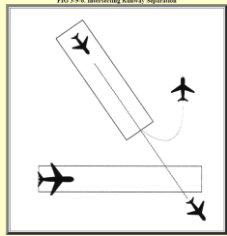
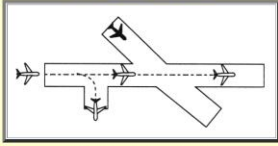
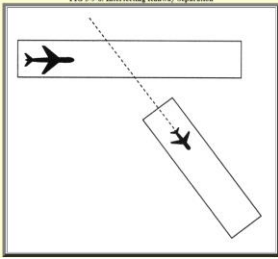
Munum breyta "an arriving aircraft" í "an aircraft" sbr. undirgreinarnar sem fjalla um að seinni vélin geti verið bæði arriving eða departing aircraft.

Þó svo FAA sé ekki útgefandi ytri krafna sem Isavia ber að fara eftir er athyglisvert að sjá að greinin er einnig í FAA Order JO 7110.65, Air Traffic Control, svo til orðrétt:

**3-9-8. INTERSECTING RUNWAY SEPARATION**

Separate departing aircraft from an aircraft using an intersecting runway, or nonintersecting runways when the flight paths intersect, by ensuring that the departure does not begin takeoff roll until one of the following exists:

- a. The preceding aircraft has departed and passed the intersection, has crossed the departure runway, or is turning to avert any conflict. (See FIG 3-9-5 and FIG 3-9-6.)

<p>352.5 A. Diagram 2:</p>  <p>B. A preceding arriving aircraft has: (D)</p> <ol style="list-style-type: none"> <li>1. taxied off the runway,</li> <li>2. completed the landing roll and will hold short of the intersection, (N)</li> <li>3. passed the intersection, or</li> <li>4. crossed over the departure runway. (R)</li> </ol> <p>352.5 B. 2. Note:  <i>The preceding aircraft need not be stopped as long as: A. it has decelerated to taxi speed before the succeeding aircraft begins the take-off roll, and B. it will not enter the runway or cross the flight path being used by the departing aircraft.</i></p> <p>352.5 B. 4. Reference:  <i>Wake Turbulence: 710 (Kafli 710 fjallar um vængendahvirfla – hegðun, aðskilnað og því um líkt)</i></p> <p>352.5 B. Diagram 1:</p>  <p>352.5 B. 2. Diagram 2:</p>  <p><b>351.3</b>  Keep aircraft informed of pertinent aerodrome traffic.</p> <p><b>351.4</b>  Issue position information and traffic information, as necessary, to assist aircraft in establishing visual separation from other aircraft. (R)</p>	<p>FIG 3-9-5. Intersecting Runway Separation</p>  <p>FIG 3-9-6. Intersecting Runway Separation</p>  <p>b. A preceding arriving aircraft is clear of the landing runway, completed the landing roll and will hold short of the intersection, passed the intersection, or has crossed over the departure runway. (See FIG 3-9-7 and FIG 3-9-8.)</p> <p>FIG 3-9-7. Intersecting Runway Separation</p>  <p>FIG 3-9-8. Intersecting Runway Separation</p>  <p>Doc 4444 7.4.1.3.1 „Information on essential local traffic shall be issued in a timely manner, either directly or through the unit providing approach control service when, in the judgement of the aerodrome controller, such information is necessary in the interests of safety, or when requested by aircraft.“</p> <p>Doc 4444 7.6.1 General  As the view from the flight deck of an aircraft is normally restricted, the controller shall ensure that instructions and information which require the flight crew to employ visual detection, recognition and observation are phrased in a clear, concise and complete manner.</p>
<p><b>353 HELICOPTERS</b></p> <p><b>353.1</b>  Issue take-off or landing clearance to a helicopter provided the operation takes place on the manoeuvring area. (N)</p> <p>353.1 Note 1:</p>	<p>Strangari krafa. Ekki í ytri kröfum.</p> <p>Á Íslandi er gerð krafa um að landingar og flugtök þyrila fari fram á umferðarsvæði stjórnaðs flugvallar. Ekki má gefa heimild til</p>

<p><i>Because of their operational characteristics, it is not always necessary that helicopters adhere to the standard traffic circuit, land or take-off on the same runway or follow the flight path used by fixed-wing aircraft. In IFR weather conditions, however, helicopters conducting IFR flights are expected to climb out from or approach to an instrument runway. They may, of course, originate from or terminate at other locations on the aerodrome via airborne or ground taxiing.</i></p> <p><b>353.1 Note 2:</b> <i>An area other than a runway or taxiway may be designated as manoeuvring area by the aerodrome manager if it has been approved by the responsible authorities</i></p> <p><b>MANOEUVRING AREA (Umferðarsvæði)</b> – That part of an aerodrome to be used for the takeoff, landing and taxiing of aircraft, excluding aprons.</p>	<p>lendingar eða brottflugs hvar sem er á flugvellinum. Fyrir Reykjavík sjá AIP ICELAND BIRK AD 2.16 LENDINGARSVÆÐI FYRIR ÞYRLUR HELICOPTER LANDING AREA:</p> <p>Coordinates TLOF or THR of FATO Staðsetning landingarsvæðis</p> <p>Runways / Flugbrautir</p> <p>Skilgreining á Manoeuvring Area er úr DOC 4444 Definitions, íslenska orðið Umferðarsvæði er úr Reglugerð 787/2010</p>
<p><b>353.3</b> Include the specific route in a clearance to or from the landing area to ensure safe conformance with or avoidance of other aerodrome traffic as necessary. (R) <i>353.3 Reference: Wake turbulence: 710 (Kafli 710 fjallar um vængendahvirfla – hegðun, aðskilnað og því um líkt)</i></p>	<p>Doc 4444 7.6.3.1.1.4 Where standard taxi routes have not been published, a taxi route should, whenever possible, be described by use of taxiway and runway designators. Other relevant information, such as an aircraft to follow or give way to, shall also be provided to a taxiing aircraft.</p>
<p><b>353.6</b> Include explicit route in an air taxi clearance if necessary due to traffic or known ground hazards.</p> <p><b>353.7</b> Apply appropriate wake turbulence procedures to helicopters during air taxi as though they were departing aircraft. (R) <i>353.7 Reference: Wake Turbulence: 710. (Kafli 710 fjallar um vængendahvirfla – hegðun, aðskilnað og því um líkt, m.a. 711.2):</i></p>	<p>DOC 4444 7.6.3.1.1.1 Prior to issuing a taxi clearance, the controller shall determine where the aircraft concerned is parked. Taxi clearances shall contain concise instructions and adequate information so as to assist the flight crew to follow the correct taxi routes, to avoid collision with other aircraft or objects and to minimize the potential for the aircraft inadvertently entering an active runway. DOC 4444 7.6.3.1.1.4 Where standard taxi routes have not been published, a taxi route should, whenever possible, be described by use of taxiway and runway designators. Other relevant information, such as an aircraft to follow or give way to, shall also be provided to a taxiing aircraft.</p> <p>DOC 4444 7.6.3.1.4.3 Instructions which require small aircraft or helicopters to taxi in close proximity to taxiing helicopters should be avoided and consideration should be given to the effect of turbulence from taxiing helicopters on arriving and departing light aircraft.</p>
<p><b>711.2</b> All aircraft produce vortices somewhat in proportion to their weight. Helicopters in forward flight produce vortices that, per pound of gross weight, are more intense than those of</p>	<p>DOC 4444 4.9.1.2 Helicopters should be kept well clear of light aircraft when hovering or while air taxiing.</p>

<p>fixed-wing aircraft. However, since wake turbulence is invisible, its presence and exact location cannot be determined with precision.</p>	<p><i>Note 1.— Helicopters produce vortices when in flight and there is some evidence that, per kilogram of gross mass, their vortices are more intense than those of fixed-wing aircraft.</i></p> <p><i>Note 2.— The provisions governing wake turbulence separation minima are set forth in Chapter 5, Section 5.8, and Chapter 8, Section 8.7.3.</i></p>
<p><b>355 RUNWAY INCURSION OR OBSTRUCTED RUNWAY</b>  <b>355.1</b>          In the event the aerodrome controller, after a takeoff clearance or a landing clearance has been issued, becomes aware of a runway incursion or the imminent occurrence thereof, or the existence of any obstruction on or in close proximity to the runway likely to impair the safety of an aircraft taking off or landing, appropriate action shall be taken as follows: (N)          A. cancel the take-off clearance for a departing aircraft;          B. instruct a landing aircraft to execute a go around or missed approach;          C. in all cases inform the aircraft of the runway incursion or obstruction and its location in relation to the runway.</p> <p><b>355.1 Note:</b>  <i>Animals and flocks of birds may constitute an obstruction with regard to runway operations. In addition, an aborted take-off or a go-around executed after touchdown may expose the aeroplane to the risk of overrunning the runway.</i>  <i>Moreover, a low altitude missed approach may expose the aeroplane to the risk of a tail strike. Pilots may, therefore, have to exercise their judgement in accordance with Annex 2, 2.4, concerning the authority of the pilot-in-command of an aircraft.</i></p>	<p><b>Doc 4444 7.4.1.4.1</b>  <b>7.4.1.4 RUNWAY INCURSION OR OBSTRUCTED RUNWAY</b>  <b>7.4.1.4.1</b> In the event the aerodrome controller, after a take-off clearance or a landing clearance has been issued, becomes aware of a runway incursion or the imminent occurrence thereof, or the existence of any obstruction on or in close proximity to the runway likely to impair the safety of an aircraft taking off or landing, appropriate action shall be taken as follows:          a) cancel the take-off clearance for a departing aircraft;          b) instruct a landing aircraft to execute a go-around or missed approach;          c) in all cases inform the aircraft of the runway incursion or obstruction and its location in relation to the runway.</p> <p><i>Note.— Animals and flocks of birds may constitute an obstruction with regard to runway operations. In addition, an aborted take-off or a go-around executed after touchdown may expose the aeroplane to the risk of overrunning the runway.</i>  <i>Moreover, a low altitude missed approach may expose the aeroplane to the risk of a tail strike. Pilots may, therefore, have to exercise their judgement in accordance with Annex 2, 2.4, concerning the authority of the pilot-in-command of an aircraft.</i></p>
<p><b>307 VISUAL SCANNING - MANOEUVRING AREA</b></p>	
<p><b>307.2</b>          Ensure that the runway to be used by a departing or arriving aircraft is free, or will be free, of all known obstacles including vehicles, equipment and personnel before the departing aircraft commences its take-off or a landing aircraft crosses the runway threshold. (N)(R)  <b>307.2 Note 1:</b> <i>In the case of an aircraft departing from an intersection, there is no need to advise of obstructions on the runway which are behind the intersection take-off point.</i>  <b>307.2 Note 2:</b> <i>If the runway or a portion of the runway is not visible to the airport controller for any reason, including weather or a physical obstacle, it is expected you will ensure that vehicles, equipment and personnel you have been made aware of, are not on the runway. If the physical obstacle is of a permanent nature, the fact that a portion of the runway is not visible from the control tower should be published in AIP Iceland.</i>  <b>307.2 Reference:</b> <i>Denial of Clearance; 313</i></p>	<p><b>Doc 9432 5.3.2,</b> If a vehicle is operating on the runway, it shall be instructed to leave the runway when it is expected that an aircraft will be landing or taking off.</p> <p>Orðalagið í MANOPS 307.2 kemur úr MANOPS Kanada 308. Samsvarandi texti er ekki í ytri kröfum en Doc 4444 7.1.1.2 inniheldur kröfu um að fylgjast með öllu á manoeuvring area.</p> <p><b>7.1.1.2</b> Aerodrome controllers shall maintain a continuous watch on all flight operations on and in the vicinity of an aerodrome as well as vehicles and personnel on the manoeuvring area. Watch shall be maintained by visual observation, augmented in low visibility conditions by an ATIS surveillance system when available. Traffic shall be controlled in accordance with the procedures set forth herein and all applicable traffic rules specified by the appropriate</p>



	<p>ATS authority. If there are other aerodromes within a control zone, traffic at all aerodromes within such a zone shall be coordinated so that traffic circuits do not conflict.</p> <p><i>Note.— Provisions for the use of an ATS surveillance system in the aerodrome control service are contained in Chapter 8, Section 8.10.</i></p> <p>Textinn í MANOPS 307.2 eru nákvæmari leiðbeiningar til flugumferðarstjórans.</p>
<p><b>334.7</b> If the control tower is unable to determine, either visually or via an ATS surveillance system that a vacating or crossing aircraft has cleared the runway, the aircraft shall be requested to report when it has vacated the runway. The report shall be made when the entire aircraft is beyond the relevant runway-holding position.</p>	<p>DOC 4444 7.6.3.1.2.2 orðrétt</p>
<p><b>308 ESSENTIAL LOCAL TRAFFIC INFORMATION</b></p>	
<p><b>308.1</b> Information on essential local traffic shall be issued in a timely manner, either directly or through the unit providing approach control service when, in the judgement of the aerodrome controller, such information is necessary in the interests of safety, or when requested by aircraft. (N)</p>	<p>Doc 4444 7.4.1.3.1, orðrétt</p>
<p><i>308.1 Note 1: Essential local traffic shall be considered to consist of any aircraft, vehicle or personnel on or near the manoeuvring area, or traffic operating in the vicinity of the aerodrome, which may constitute a hazard to the aircraft concerned.</i> <i>308.1 Note 2: Wake turbulence category will only be essential traffic information if the aircraft concerned is of a heavier wake turbulence category than the aircraft to which the traffic information is directed</i></p>	<p>Doc 4444 7.4.1.3.2, Note 1 - orðrétt Doc 4444 5.10.2 Note 2 - orðrétt</p>
<p><b>308.2</b> Essential local traffic shall be described so as to be easily identified.</p>	<p>Doc 4444 6.2.1.1, orðrétt Doc 4444 7.4.1.3.3, orðrétt</p>
<p><b>309 COMMUNICATION DURING CRITICAL PHASE OF FLIGHT</b></p> <p><b>309.1</b> You should not transmit to an aircraft during takeoff, initial climb, the last part of final approach or the landing roll, unless it is necessary for safety reasons, as it may be distracting to the pilot at a time when the cockpit workload is at its highest. (R) <i>309.1 Reference: Necessary information: 471.6</i></p>	<p>Doc 9432 4.1.2, nánast orðrétt Controllers should not transmit to an aircraft during take-off, initial climb, the last part of final approach or the landing roll, unless it is necessary for safety reasons, as it may be distracting to the pilot at a time when the cockpit workload is at its highest.</p>

<p><b>471.6</b> During final approach, the following information shall be transmitted without delay:</p> <p>A. the sudden occurrence of hazards (e.g. unauthorized traffic on the runway);</p> <p>B. significant variations in the current surface wind, expressed in terms of minimum and maximum values;</p> <p>C. significant changes in runway surface conditions;</p> <p>D. changes in the operational status of required visual or non-visual aids;</p> <p>E. changes in observed RVR value(s), in accordance with the reported scale in use, or changes in the visibility representative of the direction of approach and landing.</p>	<p>Doc 4444 6.6.5, orðrétt</p>
<p><b>309.2</b> Except in cases of emergency, you should not transmit to an aircraft in the process of taking off or during the early stage of climb.</p>	<p>Doc 9432 4.5.4, nánast orðrétt Except in cases of emergency, controllers should not transmit to an aircraft in the process of taking off or during the early stage of climb.</p>
<b>335 TAKE-OFF CLEARANCE</b>	
<p><b>335.1</b> The take-off clearance shall be issued when the aircraft is ready for take-off and at or approaching the departure runway, and the traffic situation permits. To reduce the potential for misunderstanding, the take-off clearance shall include the designator of the departure runway. (R)</p> <p><i>335.1 Reference Appendix A: 3.4.11</i></p>	<p>Doc 4444 7.9.3.4, orðrétt Doc 9432 4.5.8, When several runways are in use and there is any possibility that the pilot may be confused as to which one to use, the runway number should be stated in the take-off clearance.</p> <p>Appendix A: 3.4.11: Doc4444 12.3.4.11 - orðrétt</p>
<p><b>335.4</b> Issue a take-off clearance in the following form: (N)</p> <p><i>335.4 Note 1: The words "TAKE OFF" are used only when an aircraft is cleared for take-off, or when cancelling a take-off clearance.</i></p> <p><i>335.4 Note 2:</i> <i>Prior to take-off aircraft shall be advised of:</i></p> <p><i>a) any significant changes* in the surface wind direction and speed, the air temperature, and the visibility or RVR value(s);</i></p> <p><i>b) significant meteorological conditions in the take-off and climbout area, except when it is known that the information has already been received by the aircraft.</i></p> <p><i>* Significant meteorological conditions in this context include the occurrence or expected occurrence of cumulonimbus or thunderstorm, moderate or severe turbulence, wind shear, hail, moderate or severe icing, severe squall line, freezing precipitation, severe mountain waves, sandstorm, duststorm, blowing snow, tornado or waterspout in the take-off and climb-out area.</i></p> <p>A. (Aircraft identification)</p> <p>B. (Unit identification if required). (R)</p> <p><i>335.4 B. Reference:</i> <i>Omission of unit name: 215.2.</i></p> <p>C. (Special information, such as a hazard or obstruction).</p>	<p>A) Annex 10 Vol II, 5.2.1.7.3.2, nefna kallmerki Note 1: Doc44444 7.9.3.3, Svo til orðrétt og Doc 9432 hluti af 2.8.3.3, orðrétt Note 2: Doc4444 7.4.1.2.2, orðrétt</p> <p>B) Annex 10 Vol II, 5.2.1.7.1.2, The unit or service shall be identified in accordance with the table below except that the name of the location or the unit/service may be omitted provided satisfactory communication has been established.</p> <p>C) Doc 4444 12.3.4.11... when reduced runway separation is used b) (traffic information) RUNWAY (number) CLEARED FOR TAKE-OFF; Doc 4444 7.5 um essential information</p> <p>D) Doc 9432 4.5.9 Departure instructions</p>

<p>D. (Control instruction, such as a turn after take-off).</p> <p>E. (Wind information if required). (R)  <i>335.4 E. Reference:  Significant changes: 471.5 Note</i></p> <p>F. RUNWAY (number) CLEARED FOR TAKE-OFF</p>	<p>may be given with the take-off clearance. Such instructions are normally given to ensure separation between aircraft operating in the vicinity of the aerodrome.</p> <p>E) Doc 4444 7.4.1.2.2  <i>335.4 E. Reference: Significant changes: 471.5 Note: Doc4444 6.6.4, orðrétt</i></p> <p>F) Doc 4444 12.3.4.11 TAKE-OFF CLEARANCE  a) RUNWAY (number) CLEARED FOR TAKE-OFF [REPORT AIRBORNE];</p> <p>DOC 4444 7.9.3.3. “To reduce the potential for misunderstanding, the take-off clearance shall include the designator of the departure runway. “</p>
<b>APPENDIX A Phraseology</b>	
<p><b>3.4.10</b> Preparation for take-off  f) LINE UP [AND WAIT];  †g) LINE UP RUNWAY (<i>number</i>);  ... clearance to enter runway and await take-off clearance  †When there is the possibility of confusion during multiple runway operations.</p>	<p>Doc 4444 12.3.4.10 Orðrétt</p>
<p><b>3.4.11 Take-off clearance</b>  a) RUNWAY (<i>number</i>) CLEARED FOR TAKE-OFF [REPORT AIRBORNE];  ... when reduced runway separation is used  b) (<i>traffic information</i>) RUNWAY (<i>number</i>) CLEARED FOR TAKE-OFF  ...when take-off clearance has not been complied with  c) TAKE OFF IMMEDIATELY OR VACATE RUNWAY [(<i>instructions</i>)];  d) TAKE OFF IMMEDIATELY OR HOLD SHORT OF RUNWAY;  ... to cancel a take-off clearance e) HOLD POSITION, CANCEL TAKE-OFF I SAY AGAIN CANCEL TAKE-OFF (<i>reasons</i> );  ... to stop a take-off after an aircraft has commenced take-off roll  g) STOP IMMEDIATELY [(<i>repeat aircraft call sign</i>) STOP IMMEDIATELY];  ... for helicopter operations i) CLEARED FOR TAKE-OFF [FROM (<i>location</i>)] (<i>present position, taxiway, final approach and take-off area, runway and number</i>);  k) AFTER DEPARTURE TURN RIGHT (<i>or LEFT, or CLIMB</i>)  (<i>instructions as appropriate</i>).</p>	<p>Doc 4444 12.3.4.11 Orðrétt</p>

<b>APPENDIX B orðtök</b>	
<b>3.4.10 Undirbúningur flugtaks</b> f) AKTU Í BRAUTARSTÖÐU Ath. - Má fylgja eftir með BÍDDU, **g) AKTU Í BRAUTARSTÖÐU BRAUT (númer) ...heimild til að aka inn á flugbrautina og bíða flugtaksheimildar ** Þegar misskilningur er hugsanlegur vegna notkunar fleiri flugbrauta	Þýtt úr Doc 4444 12.3.4.10
<b>3.4.11 Flugtaksheimild</b> a) HEIMILT FLUGTAK b) HEIMILT FLUGTAK BRAUT (númer), ...ef misskilningur er hugsanlegur c) FLUGTAK STRAX EÐA ÚT AF BRAUT, d) FLUGTAK STRAX EÐA BÍÐA VIÐ BRAUT, ...hafi heimild ekki verið fylgt e) VERTU KYRR, AFTURKALLA - ÉG ENDURTEK - AFTURKALLA FLUGTAKSHEIMILD (orsök), ...til að afturkalla flugtaksheimild g) STÖÐVAÐU STRAX [(endurtakið kallmerki loftfars) STÖÐVAÐU STRAX], ...til að stöðva flugtak ef vél hefur hafið flugtaksbrun i) HEIMILT FLUGTAK [FRÁ (staðsetning)] (núverandi staða akbraut, loka aðflugs og flugtakssvæði, braut og númer), .. flugtaksheimild fyrir þyrlur	Þýtt úr Doc 4444 12.3.4.11
<b>422.2</b> You may instruct an aircraft to follow a specified track or heading for a specified time, to a location, or to an altitude provided the instruction does not prevent the aircraft from clearing all obstructions and terrain in accordance with the specified minimum. (R)(P) <b>571.4</b> Include the following instructions in a departure clearance as applicable: A. The initial heading to be flown if the aircraft is to be vectored immediately after take-off. B. Level to be maintained before continuing climb to assigned level.	DOC 4444 CHAPTER 6. Separation in the vicinity of aerodromes 6.3.1.1 Clearances for departing aircraft shall specify, when necessary for the separation of aircraft, direction of take-off and turn after take-off; heading or track to be made good before taking up the cleared departure track; level to maintain before continuing climb to assigned level; time, point and/or rate at which a level change shall be made; and any other necessary manoeuvre consistent with safe operation of the aircraft.
<b>335.10</b> You may authorize departure from an intersection provided: A. the aircraft requests it, or B. you suggest it and the aircraft accepts it.	Doc 4444 12.3.4.11 TAKE-OFF CLEARANCE ... for helicopter operations i) CLEARED FOR TAKE-OFF [FROM ( <i>location</i> )] ( <i>present position, taxiway, final approach and take-off area, runway and number</i> );
<b>335.14</b> Departing aircraft may be expedited by suggesting a take-off direction which is not into	Doc 4444 6.3.3.1 Orðrétt

the wind. It is the responsibility of the pilot-in-command of an aircraft to decide between making such a take-off or waiting for take-off in a preferred direction.

### Umferðartakmarkanir

Tvær sérreglur eiga við um umferðartakmarkanir á Reykjavíkurlugvelli (BIRK).

<b>Sérreglur</b>	
<b>Sérregla í BIRK TWR nr. 17007 Stjórnun umferðar</b>	
<p>Við rýni á flugleiðsöguþjónustunni á Reykjavíkurlugvelli hafa komið fram ábendingar þess efnis að betrubæta megi gæði þjónustunnar og tryggja frekar öryggi með því að stýra betur því álagi sem getur myndast.</p> <p>Greiningarvinna auðkennir að í 3 -5% tilfella fer umferð yfir skilgreinda afkastagetu þjónustunnar.</p> <p>Í öllum þeim tilfellum sem um ræðir þá hefur fjöldi loftfara í snertilendingum haft þau áhrif að umferð var yfir skilgreindri afkastagetu.</p> <p>Flugumferðarstjórar í turni skulu því tryggja að ekki séu fleiri en þrjár vélar í snertilendingu í einu.</p>	<p>Regla útgefin í BIRK turni 5. maí 2017 til að tryggja öryggi. Álagi stýrt með því að leyfa einungis 3 vélar í snertilendingum í einu.</p>
<b>Sérregla í BIRK TWR nr. 13005 Svæðisbundnar umferðarreglur</b>	
<p>• <b>Almennar takmarkanir</b></p> <p>4. Snertilendingar eins hreyfils loftfara eru leyfðar:</p> <p>a. Mánudaga - föstudaga 09:00 - 17:00</p> <p>b. Á almennum frídögum, að vetri, 1. september til 1. maí milli 11:00 og 16:00.</p> <p>c. Snertilendingar eru ekki leyfðar á sérstökum frídögum (þ.m.t. stórhátíðardögum).</p> <p>d. Flugumferðarstjórar í flugturni hafa ávallt heimild til að takmarka snertilendingar.</p>	<p>Sérregla útgefin í BIRK turni 5. nóvember 2013 með upplýsingum um útgefnar takmarkanir í AIP Iceland og til að styrkja flugumferðarstjóra í því að takmarka æfingaflug (liður d).</p>
<b>Umferðartakmarkanir í handbók flugmanna (AIP ICELAND) fyrir Reykjavíkurlugvöll</b>	
<b>AIP ICELAND BIRK AD 2.20</b>	
<p><b>2.20.1 Almennar takmarkanir</b></p> <p>1. Talstöð skal vera með tíðni flugturns/flugradíós;</p> <p>2. Öll umferð loftfara með massa hærrí en fram kemur í tegundaskírteini er stranglega bönnuð;</p> <p>3. Eftirfarandi æfingar eru bannaðar:</p>	<p><b>2.20.1 General Restrictions</b></p> <p>1. Transceiver shall have the tower's/AFIS frequency.</p> <p>2. Higher overweight operations than indicated in the type certificate are strictly prohibited;</p> <p>3. The following exercises are prohibited:</p>

<p>a. Æfingar með skerta flughæfni, svo sem æfingar þar sem hermt er eftir hreyfilbilun við flugtak og landingar;</p> <p>b. Marklendingar;</p> <p>c. Snertilendingar fjölhreyfla lofffara.</p> <p>d. Snertilendingar lofffara með vélastærð 220 hest-öfl eða meira.</p> <p>4. Snertilendingar eins hreyfils lofffara eru leyfðar:</p> <p>a. Mánudaga - föstudaga 09:00 - 17:00</p> <p>b. Á almennum frídögum, að vetri, 1. september til 1. maí milli 11:00 og 16:00.</p> <p>c. Snertilendingar eru ekki leyfðar á sérstökum frídögum (þ.m.t. stórhátíðardögum).</p> <p>d. Flugumferðarstjórar í flugturni hafa ávallt heimild til að takmarka snertilendingar.</p> <p>5. Flugtak er ekki heimilt þegar flugbrautarskyggni er minna en 800 m.</p>	<p>a. Exercises involving reduced performance, e.g. simulated engine failure during take-off or landing;</p> <p>b. Spotlandings;</p> <p>c. Touch and go landings of multi engine aircraft;</p> <p>d. Touch and go landings of aircraft with engine rating of 220 hp or more.</p> <p>4. Touch and go landings of single engine aircraft are permitted during the following times:</p> <p>a. Monday - Fridays 09:00 -17:00</p> <p>b. On public holidays from September 1st through May 1st between 11:00 and 16:00.</p> <p>c. Touch and go landings are not permitted on special holidays.</p> <p>d. Air traffic controller in tower are always authorized to limit touch and go landings.</p> <p>5. Take-off is not permitted when RVR is less than 800 m.</p>
<p><b>2.20.2 Næturtakmarkanir</b></p> <p>Umferð um völlinn sem leyfð er:</p> <ol style="list-style-type: none"> <li>1. Sjúkra- og neyðarflug</li> <li>2. Flug Landhelgisgæslu Íslands</li> <li>3. Millilandaflug sem notar flugvöllinn sem varaflugvöll</li> <li>4. Landingar áætlunarflugs sem hefur orðið fyrir ófyrirséðum töfum</li> <li>5. Flug vegna mannúðarmála</li> </ol> <p>Sjá einnig AD-2.3 Þjónustutímar.</p>	<p><b>2.20.2 Night restrictions</b></p> <p>Traffic allowed:</p> <ol style="list-style-type: none"> <li>1. Ambulance and emergency flight</li> <li>2. The Icelandic Coastguard</li> <li>3. International flights that use BIRK as alternate airport</li> <li>4. Landings of scheduled flight subject to unforeseen delays</li> <li>5. Humanitarian flight</li> </ol> <p>See also AD-2.3 Operational hours</p>