

KIC 007101676

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007101676-01	OBS	No	0.695716	131.547106	18.1	2.521	10.4	2.1	1.89	7677	0.94	35131.68
007101676-02	OBS	No	0.695735	131.812000	53.3	2.442	10.9	5.0	1.89	7677	1.61	35130.38
007101676-03	OBS	No	233.138654	198.680511	2592.4	10.039	9.1	10.3	1.89	7677	9.91	15.09
007101676-04	OBS	No	17.371501	139.599201	1537.6	2.515	9.0	7.9	1.89	7677	7.82	481.38
007101676-06	OBS	No	10.404243	137.342248	478.1	1.665	8.5	3.3	1.89	7677	4.53	953.51
007101676-07	OBS	No	27.841844	138.968056	1896.7	3.762	8.7	8.2	1.89	7677	11.80	256.65
007101676-08	OBS	No	55.355036	156.375783	358.6	2.000	8.9	-1.0	1.89	7677	3.63	102.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007101676-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
007101676-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
007101676-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES
007101676-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007101676-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007101676-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
007101676-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

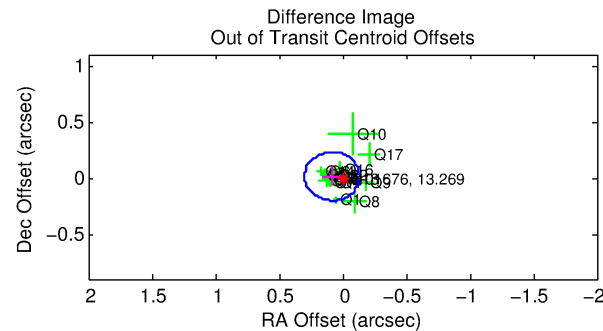
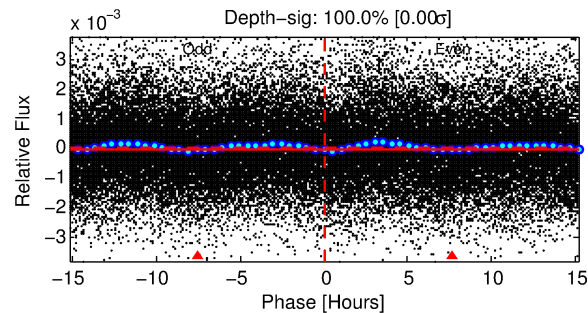
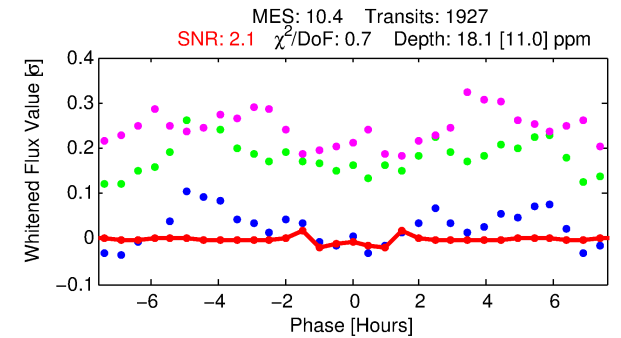
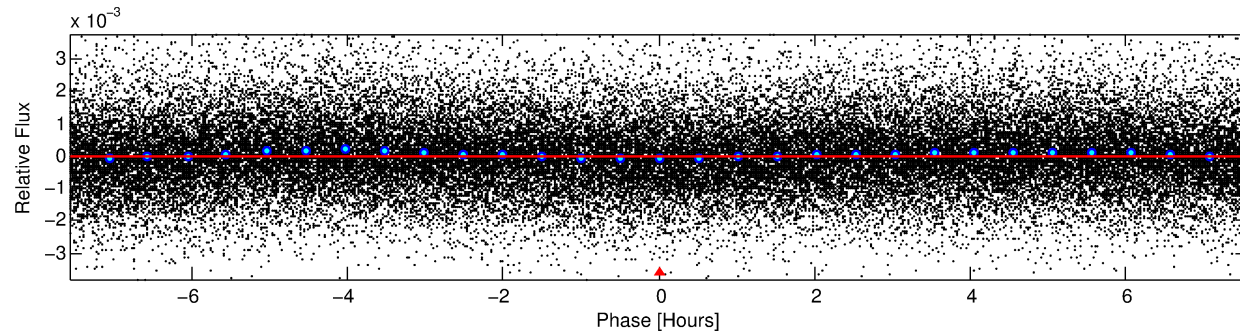
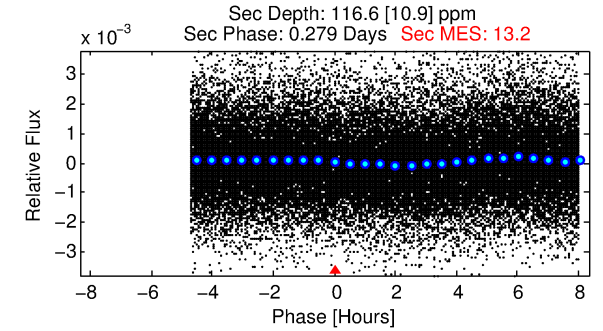
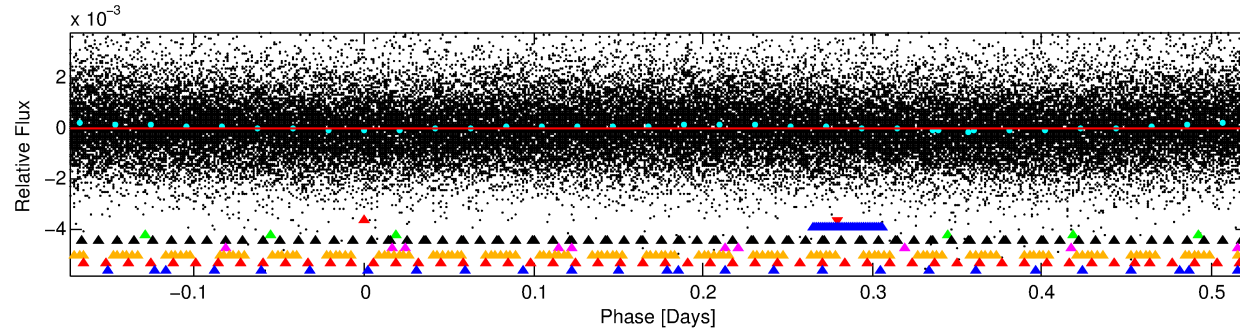
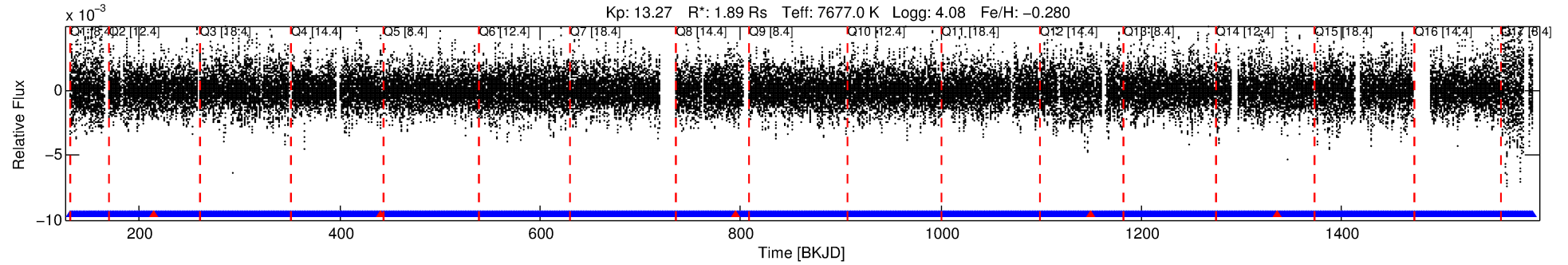
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007101676-01

No Significant Match Found

DV One-Page Summary

KIC: 7101676 Candidate: 1 of 8 Period: 0.696 d



DV Fit Results:

Period = 0.69572 [0.00004] d
Epoch = 131.5471 [0.0048] BKJD
Rp/R* = 0.0045 [0.0025]
a/R* = 1.33 [1.64]
b = 0.90 [0.61]
Seff = 35131.68 [12519.77]
Teq = 3491 [311] K
Rp = 0.94 [0.57] Re
a = 0.0178 [0.0041] AU
Ag = 23.10 [26.07] [0.85σ]
Teffp = 11832 [3234] K [2.57σ]

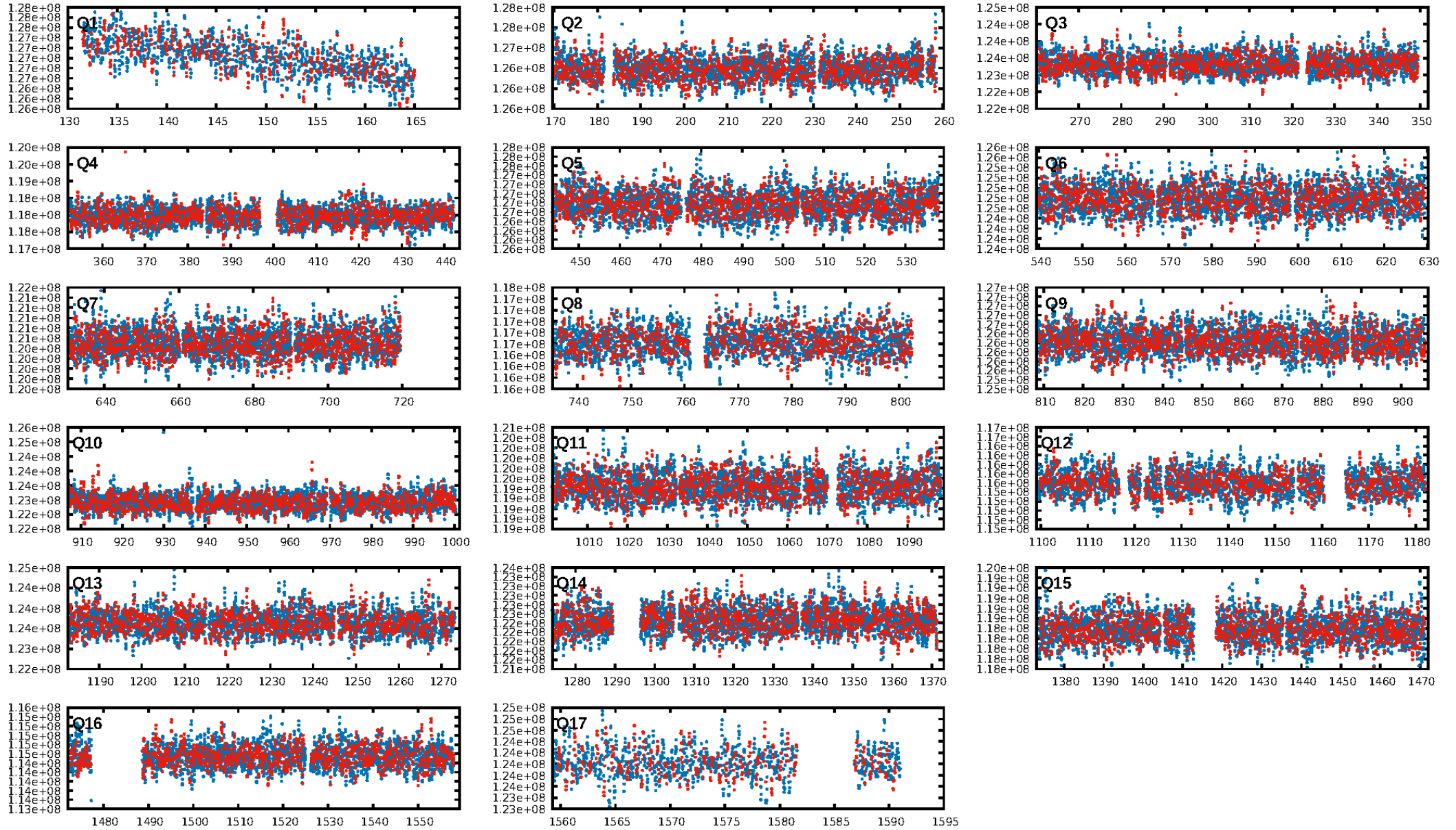
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1835/1840]
GhostDiagnostic-chr: 2.784
Centroid-sig: 8.9%
Centroid-so: 1.262 arcsec [1.18σ]
OotOffset-rm: 0.085 arcsec [1.17σ]
KicOffset-rm: 0.248 arcsec [3.36σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.53 [9/17]
DiffImageOverlap-fno: 0.00 [0/17]

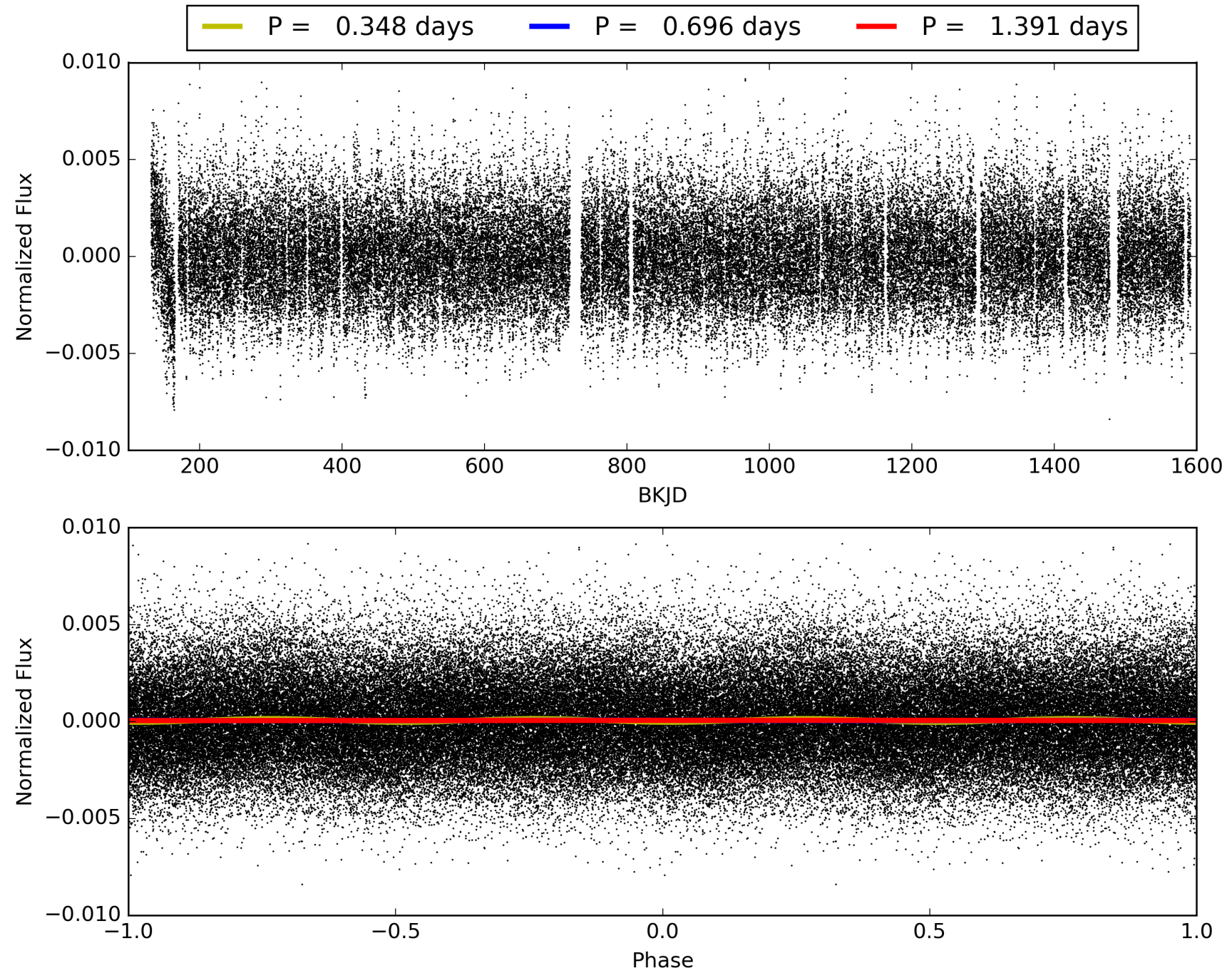
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:58:59 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007101676-01, PDC Light Curves

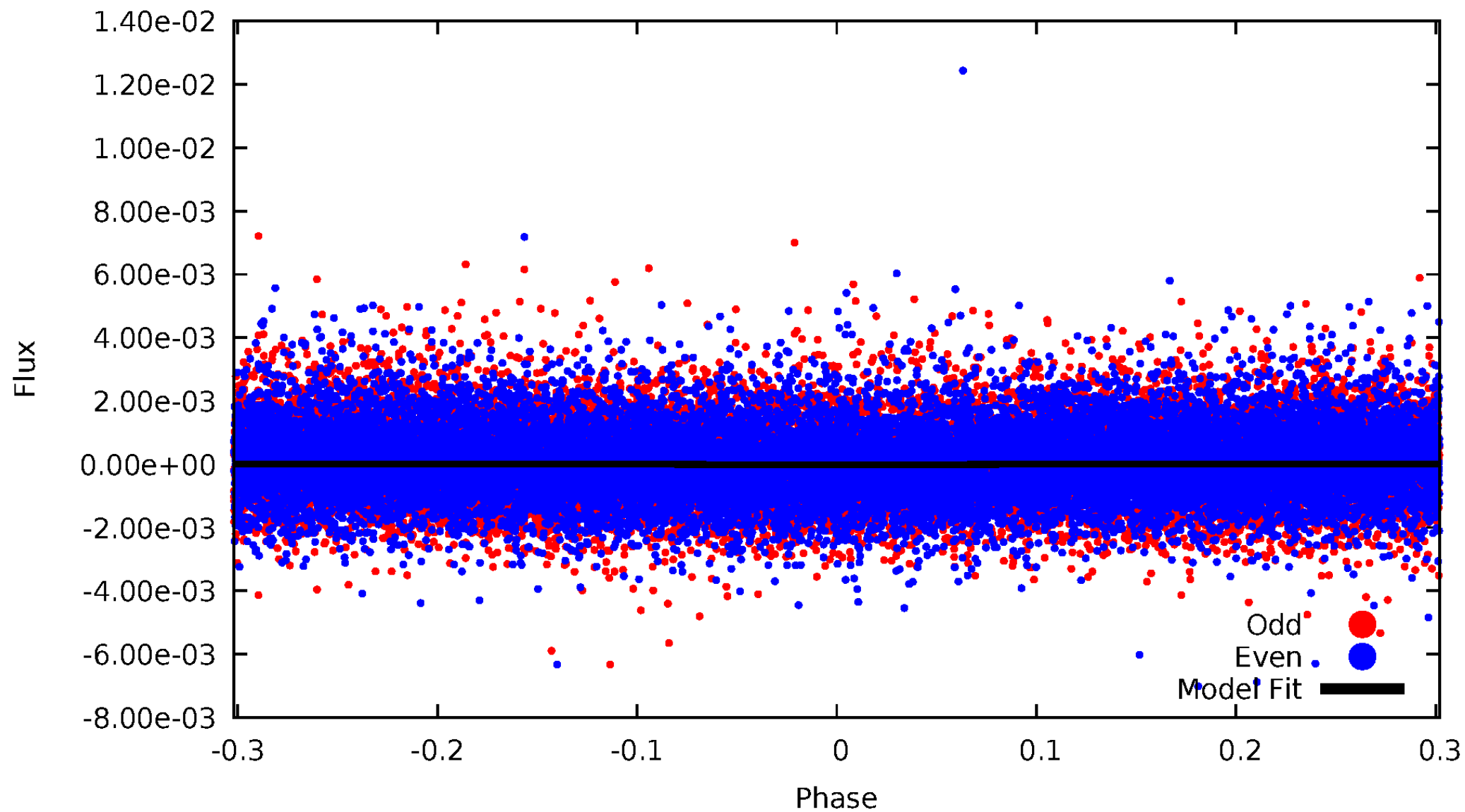


TCE 007101676-01



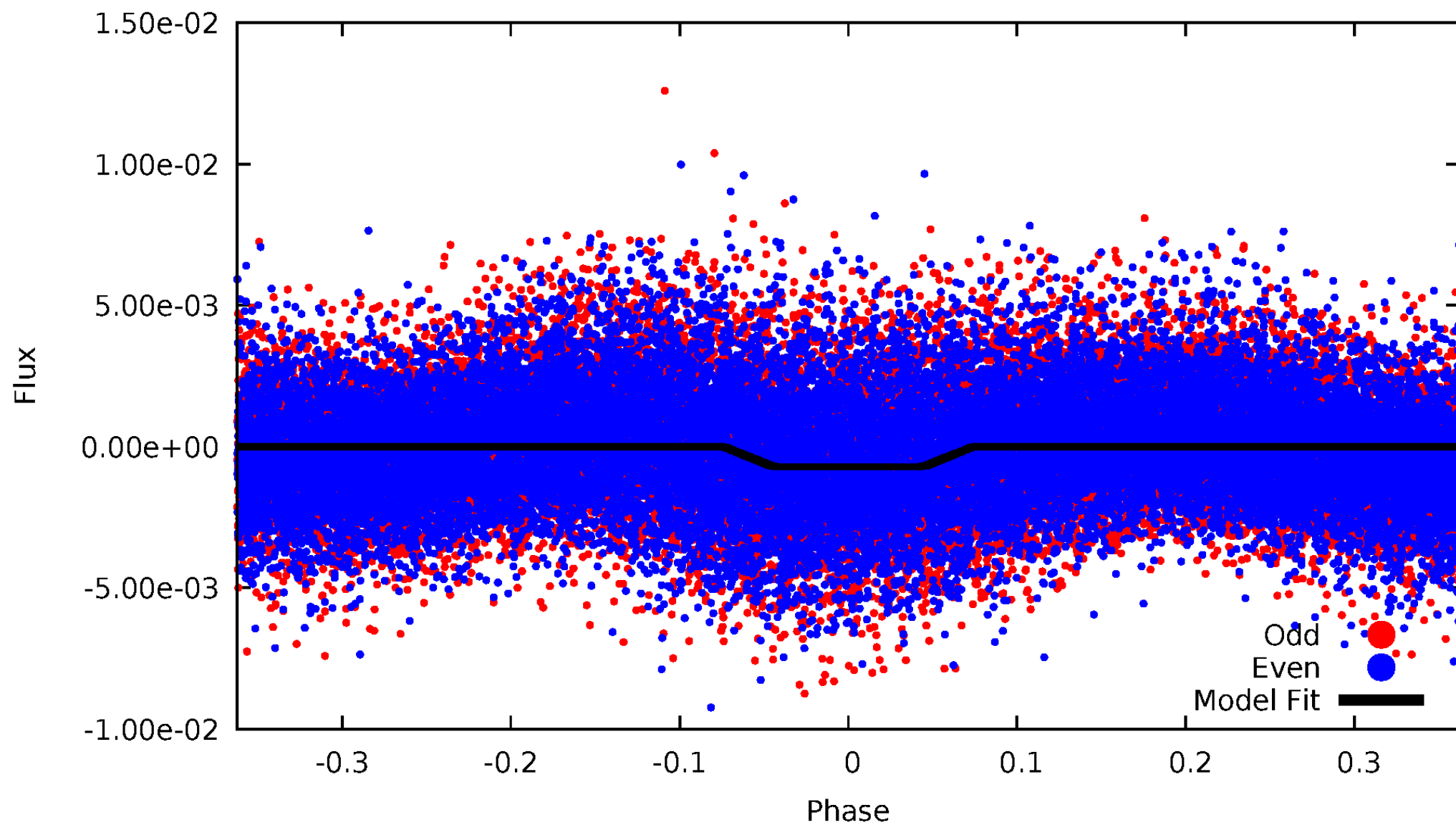
DV Odd/Even

TCE 007101676-01



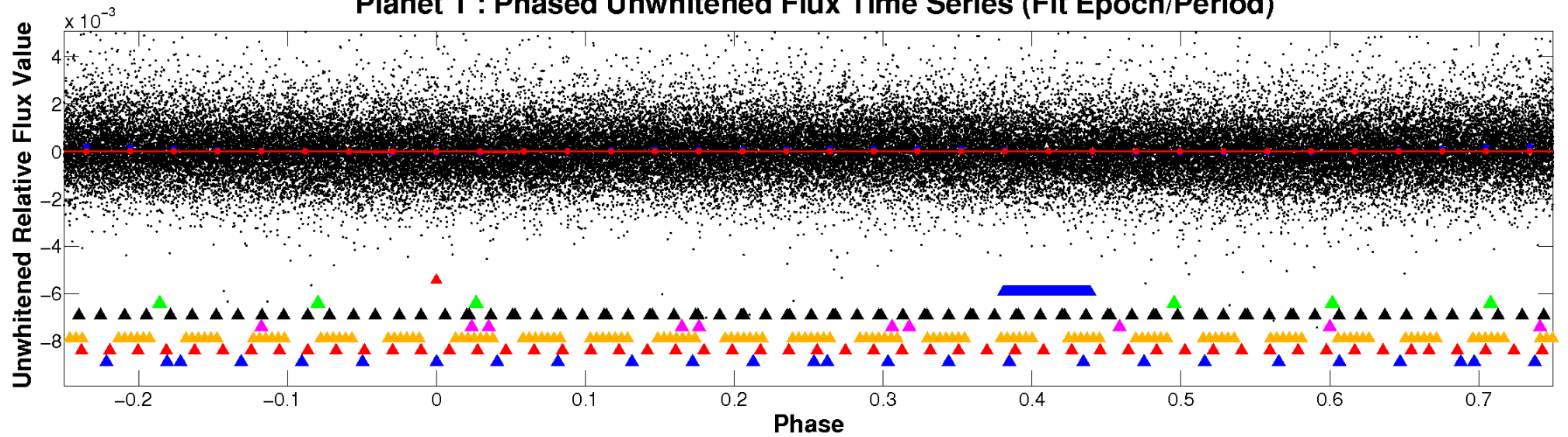
ALT Odd/Even

TCE 007101676-01

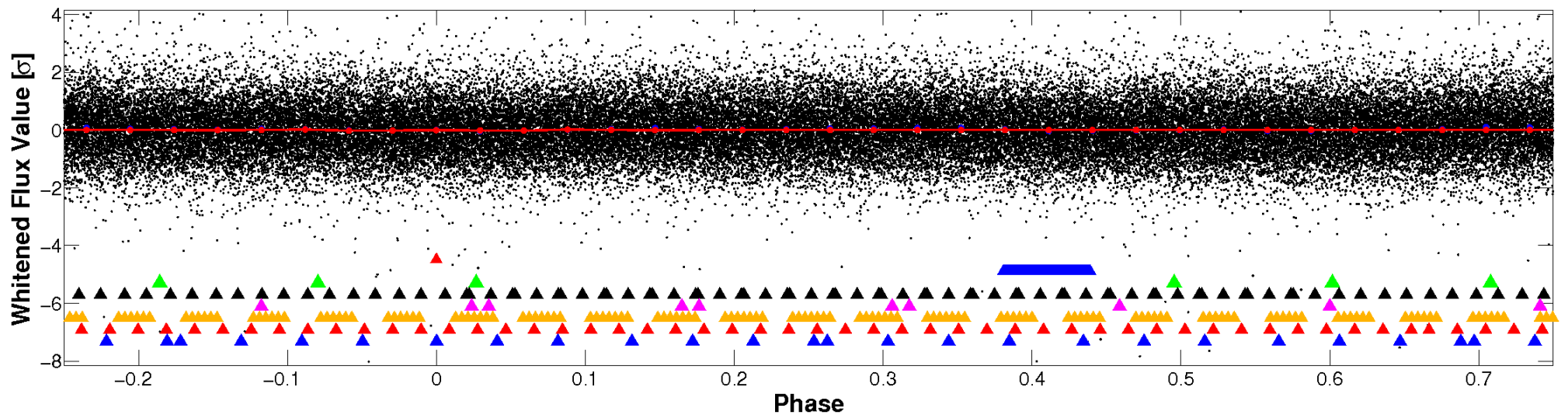


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

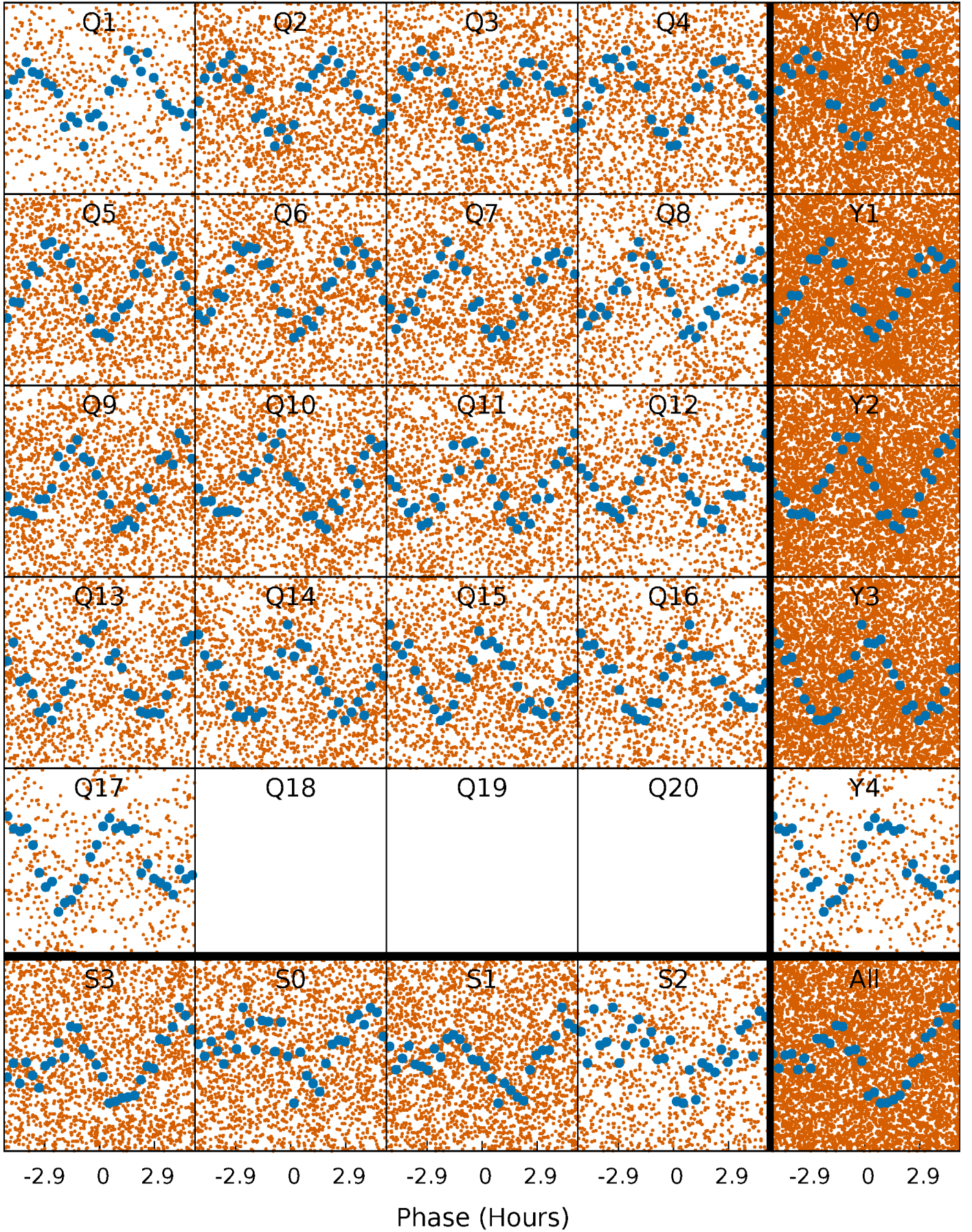


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



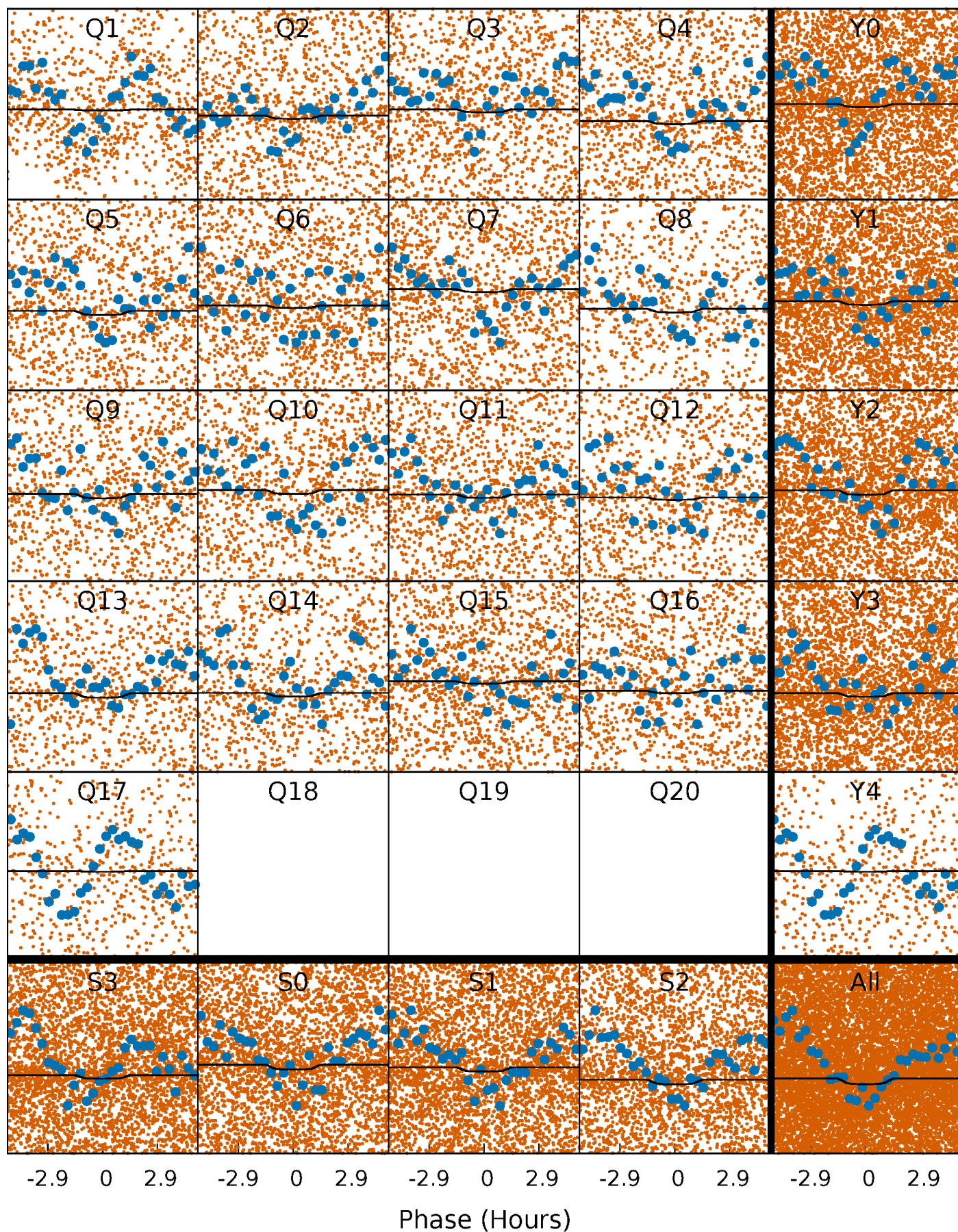
PDC Quarter-Phased Transit Curves

TCE 007101676-01 P= 0.695716 Days $T_0=131.547106$ (BKJD)



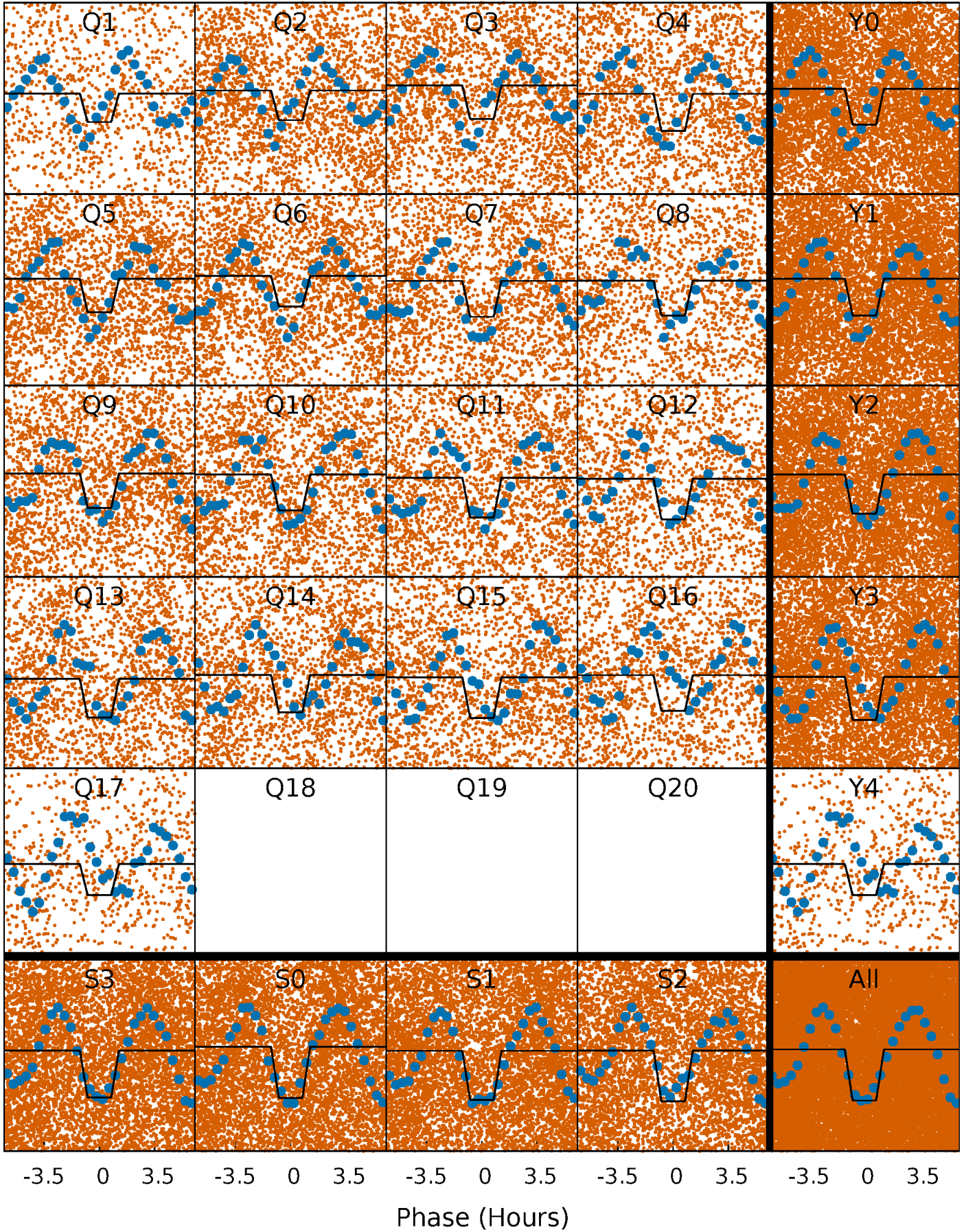
DV Quarter-Phased Transit Curves

TCE 007101676-01 P= 0.695716 Days $T_0=131.547106$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

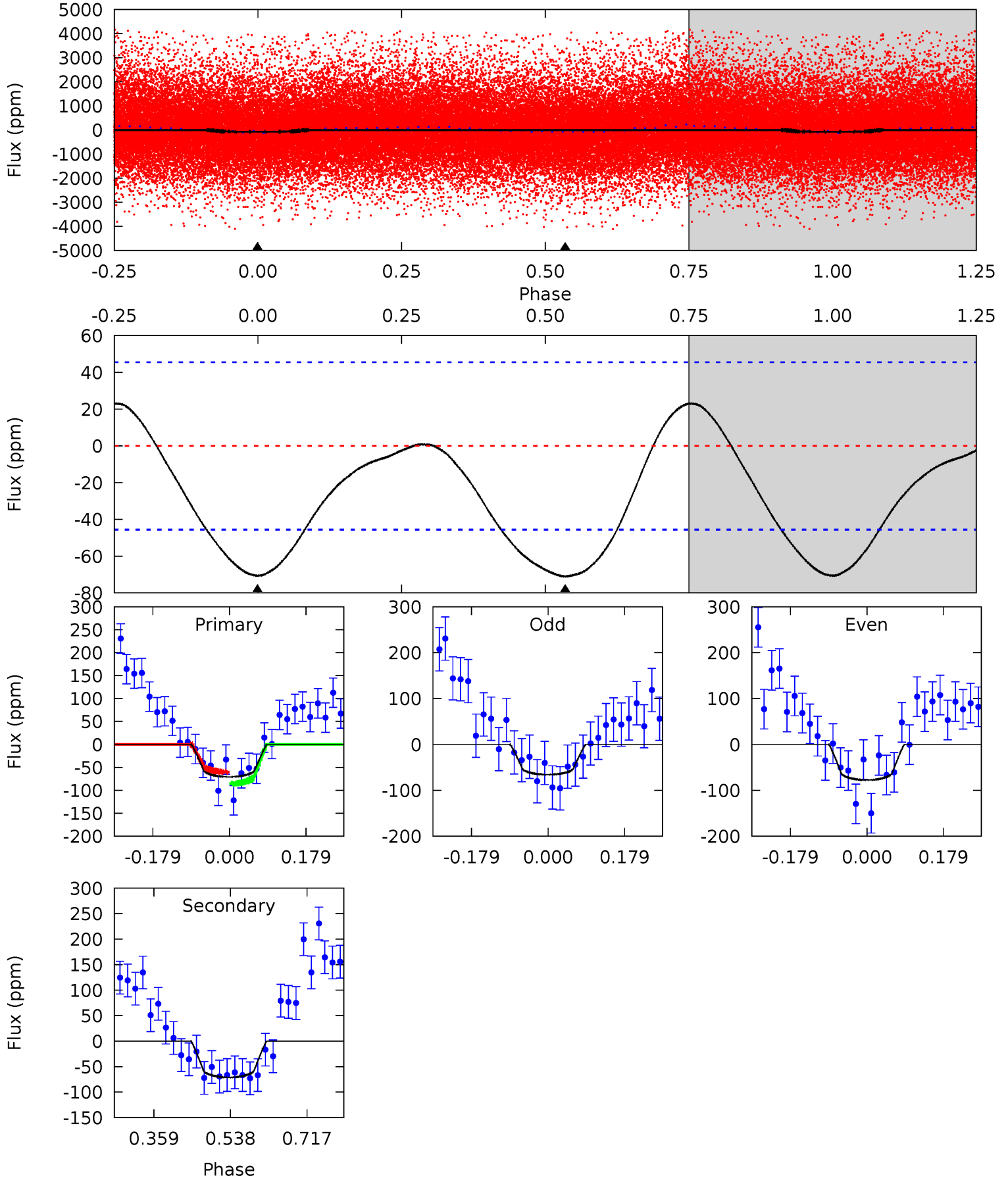
TCE 007101676-01 P= 0.695763 Days $T_0=131.550828$ (BKJD)



DV Model-Shift Uniqueness Test

007101676-01, P = 0.695716 Days, E = 130.851390 Days

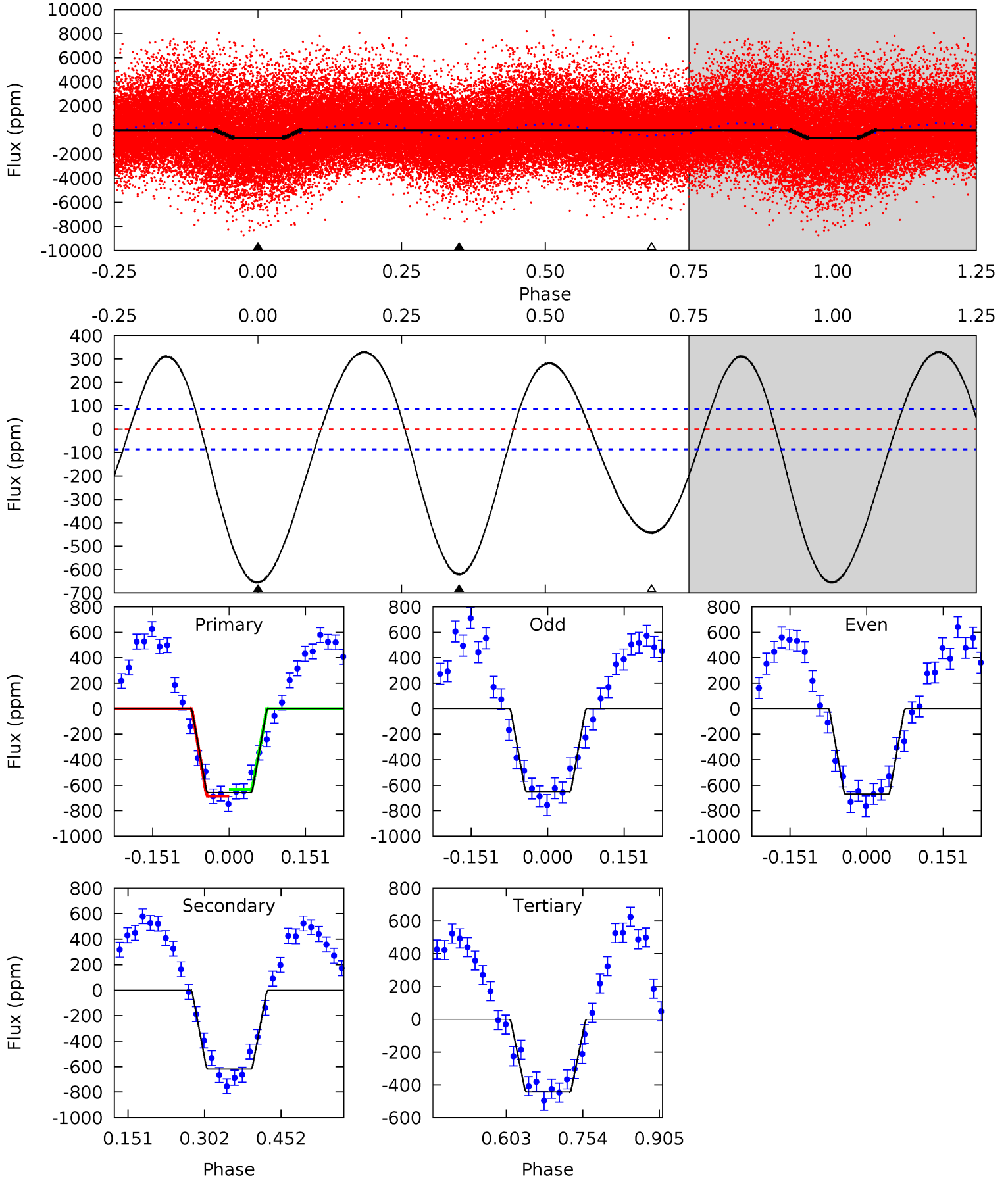
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
6.90	6.94	0	0	4.44	1.34	1.13	6.90	6.90	6.94	6.94	0.58	0.70	0.25	1.26



Alt Model-Shift Uniqueness Test

007101676-01, P = 0.695763 Days, E = 130.855065 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
34.4	32.4	23.2	0	4.48	1.44	14.6	11.2	34.4	9.21	32.4	0.47	0.91	0.33	1.30



Stellar Parameters For KIC 007101676

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7677^{+241}_{-295}	$4.076^{+0.170}_{-0.170}$	$-0.280^{+0.200}_{-0.300}$	$1.892^{+0.533}_{-0.436}$	$1.551^{+0.214}_{-0.235}$	$0.323^{+0.301}_{-0.158}$
	+3%/-4%	+4%/-4%	+71%/-107%	+28%/-23%	+14%/-15%	+93%/-49%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007101676-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-71 ± 10	$0.93^{+0.52}_{-0.46}$	4885^{+368}_{-332}	11883^{+11515}_{-3433}	14^{+41}_{-8}
Alt.	-620 ± 19	$5.45^{+0.99}_{-0.83}$	4871^{+378}_{-329}	7211^{+501}_{-460}	$3.604^{+1.331}_{-0.971}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

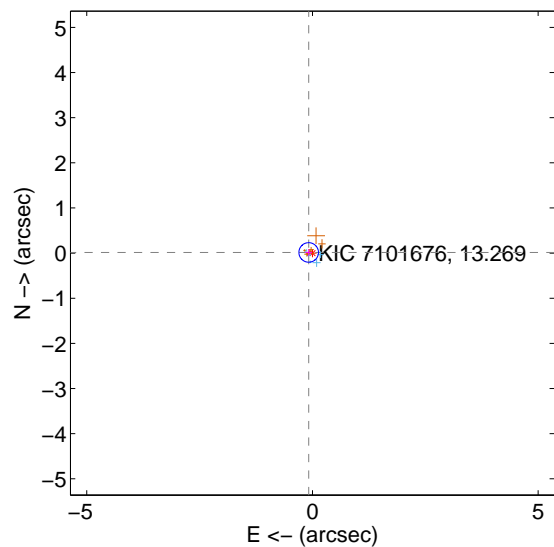
Supplemental centroid analysis for 007101676-01. Kepler magnitude: 13.27. Transit SNR 2.06

There are 9 quarters with good PRF difference image offsets

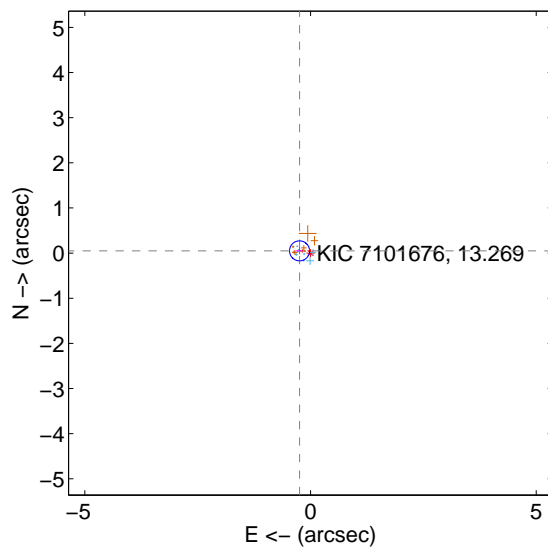
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.085 ± 0.072	1.17	0.083 ± 0.073	0.015 ± 0.074
PRF-fit source offset from KIC position	0.248 ± 0.074	3.36	0.243 ± 0.074	0.050 ± 0.075
photometric centroid source offset	1.26 ± 1.07	1.18	-0.23 ± 1.05	-1.24 ± 1.07

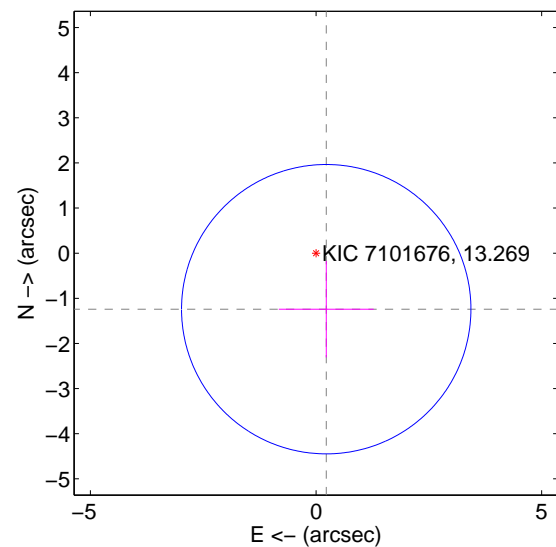
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

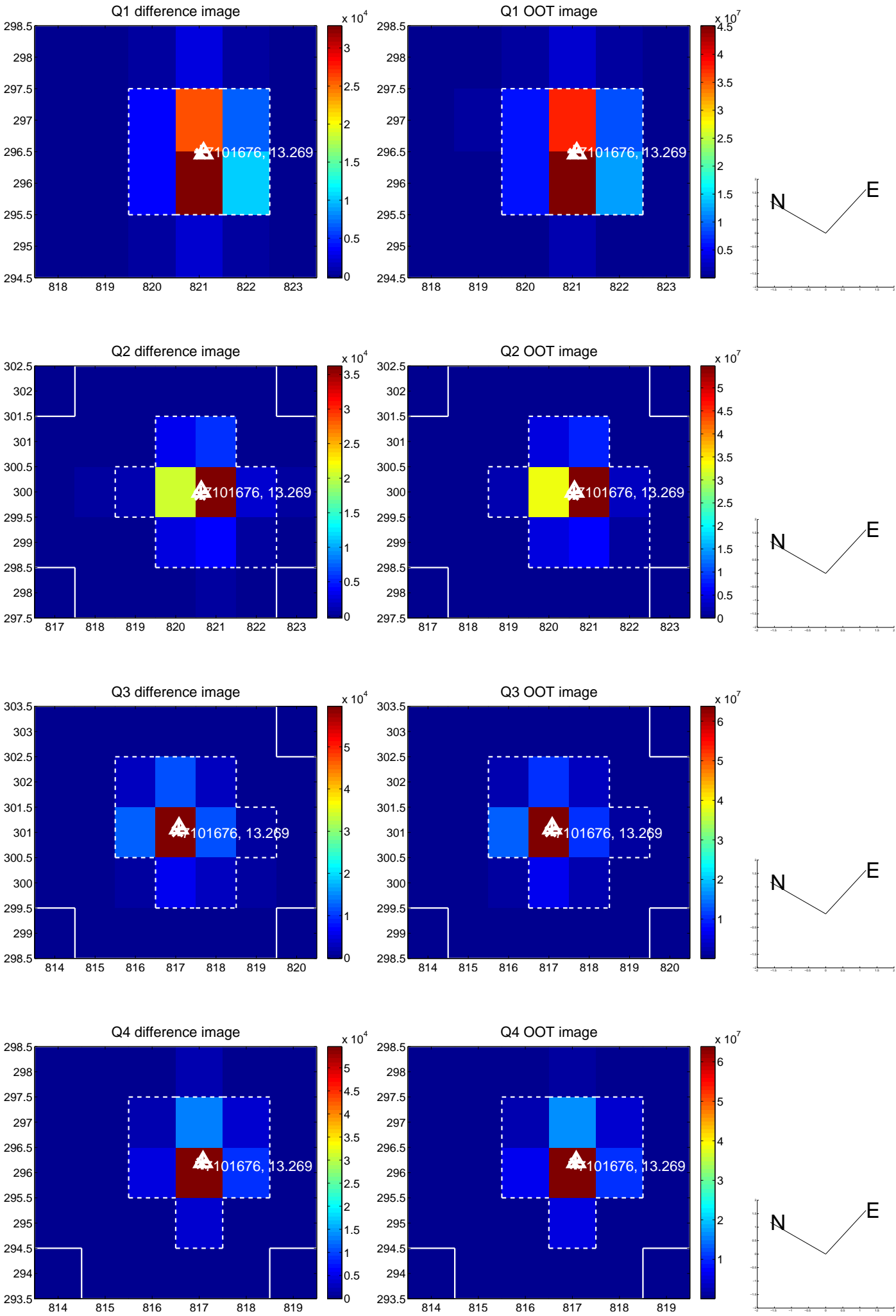


offset from photometric centroids

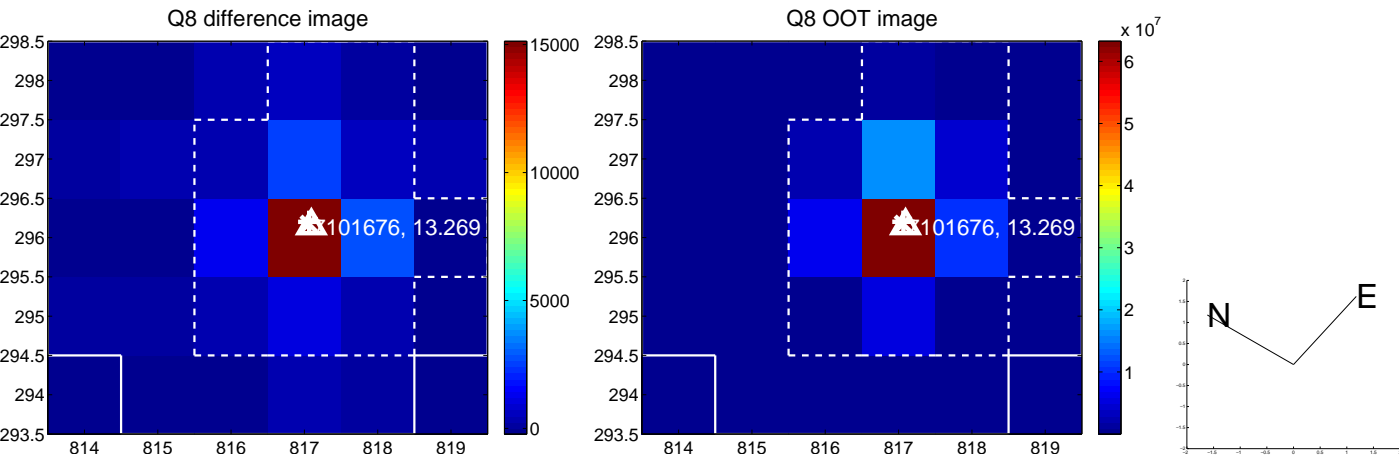
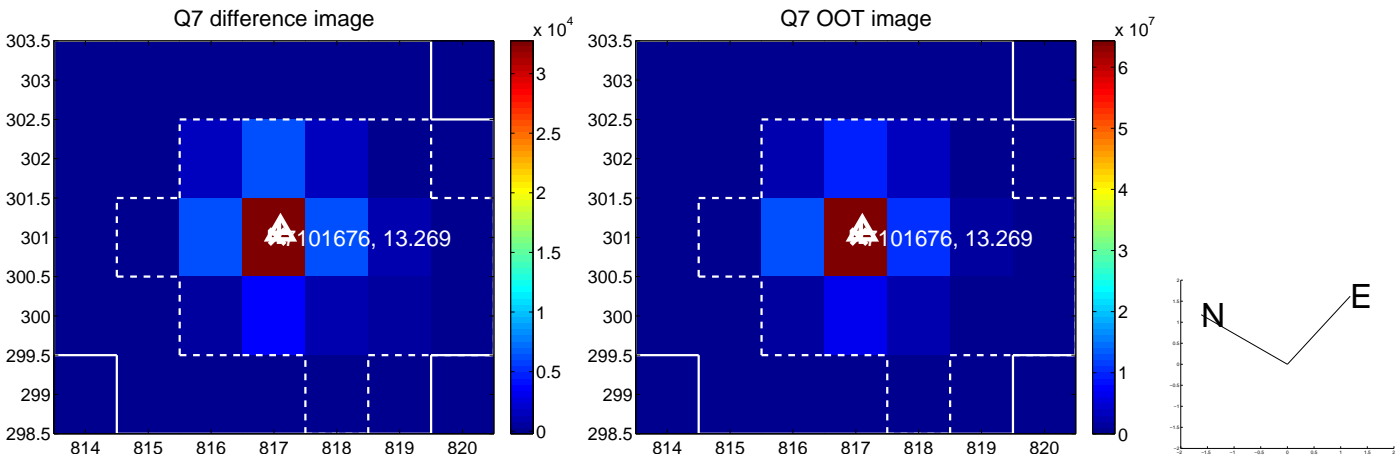
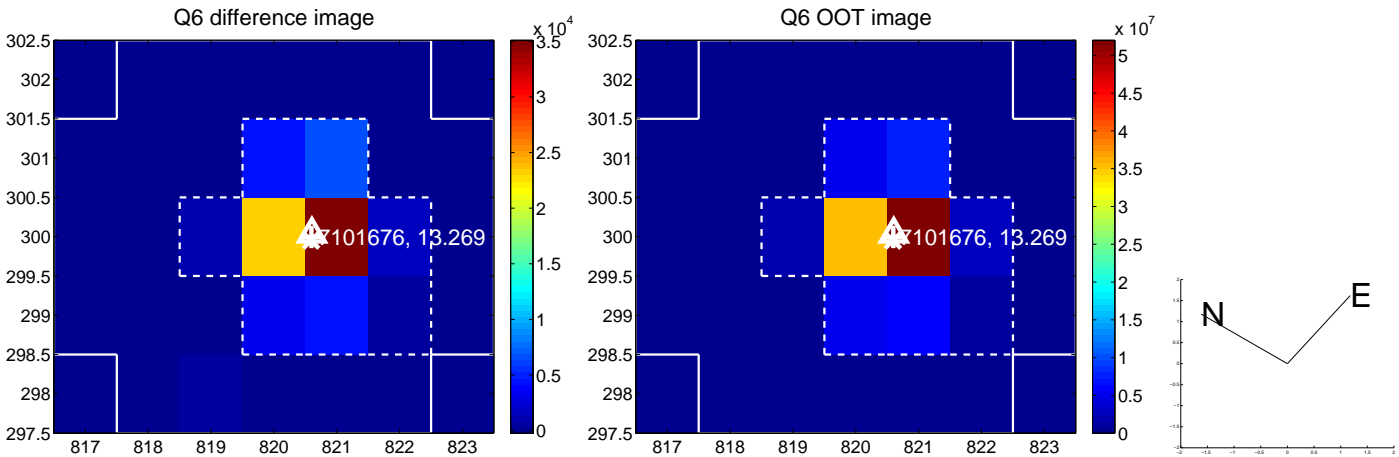
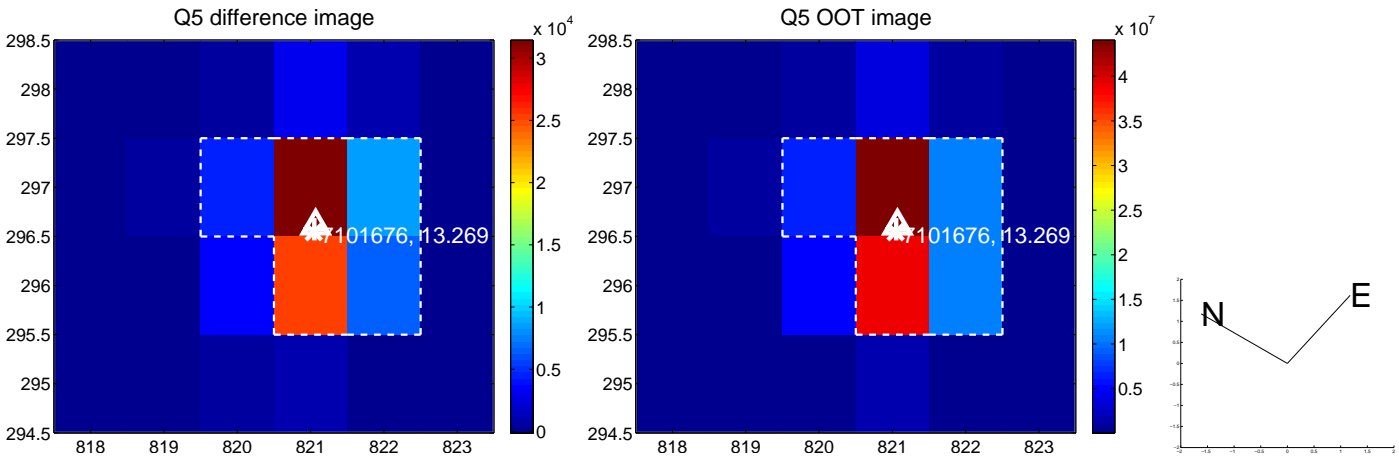


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

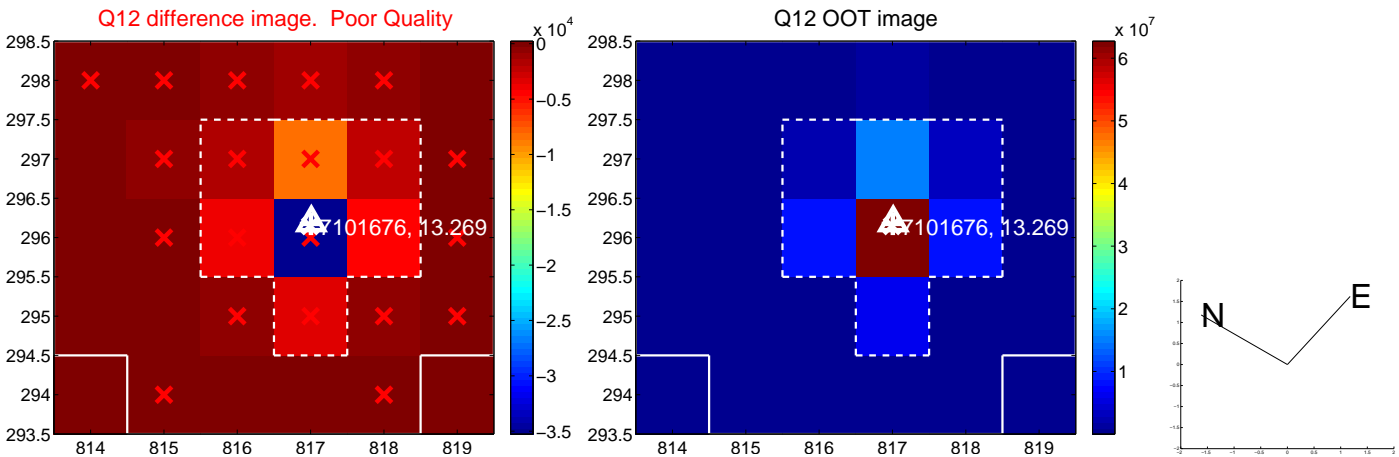
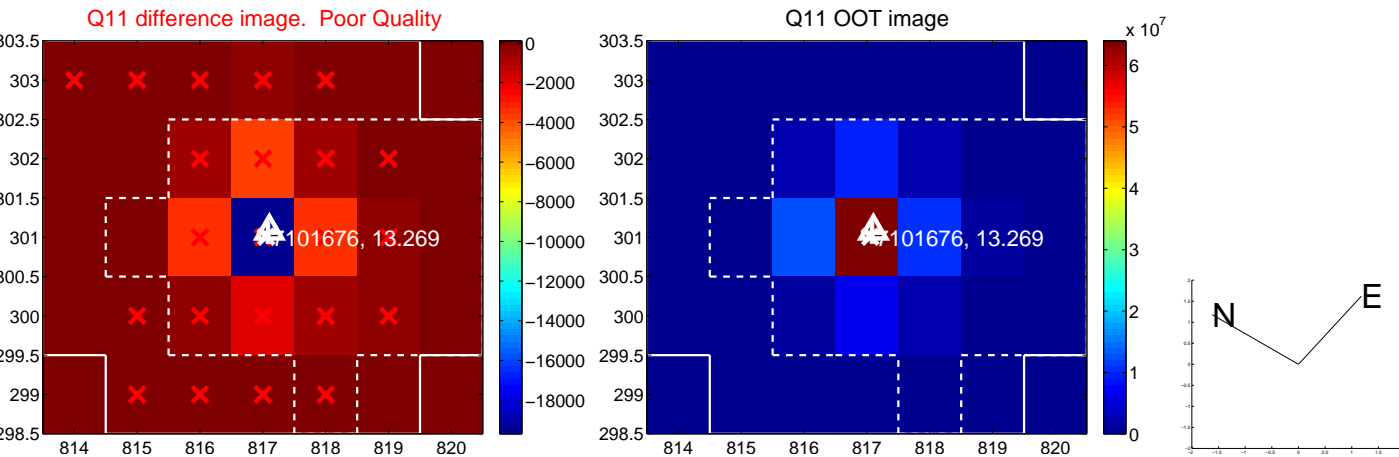
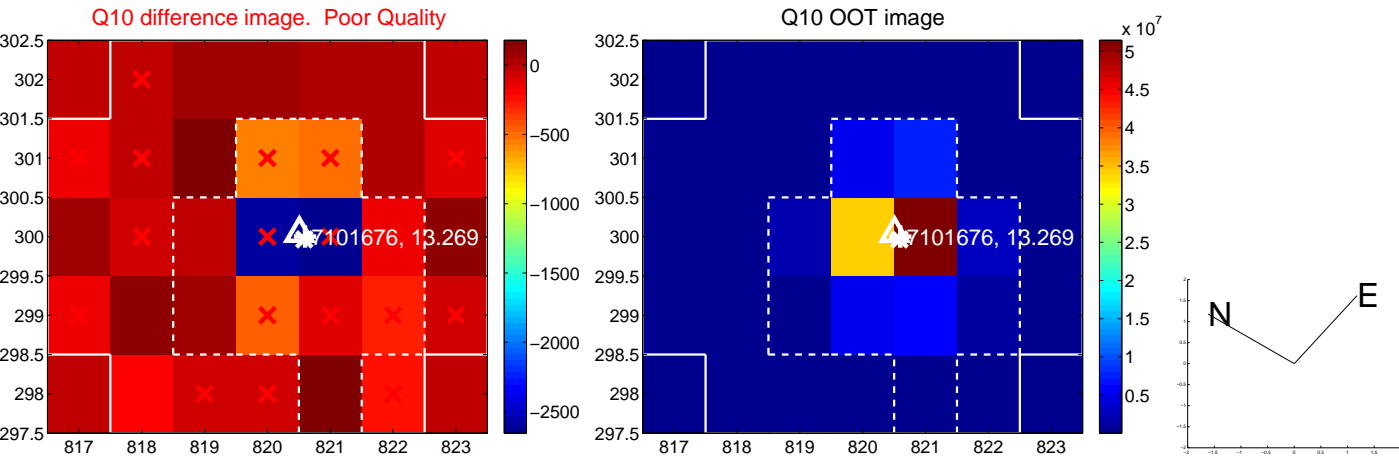
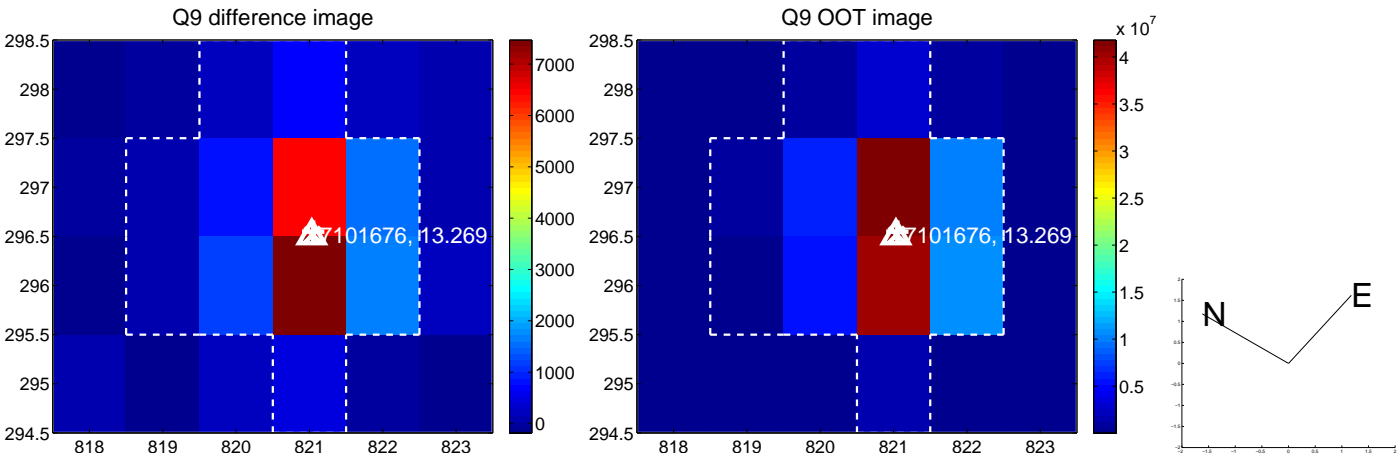
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



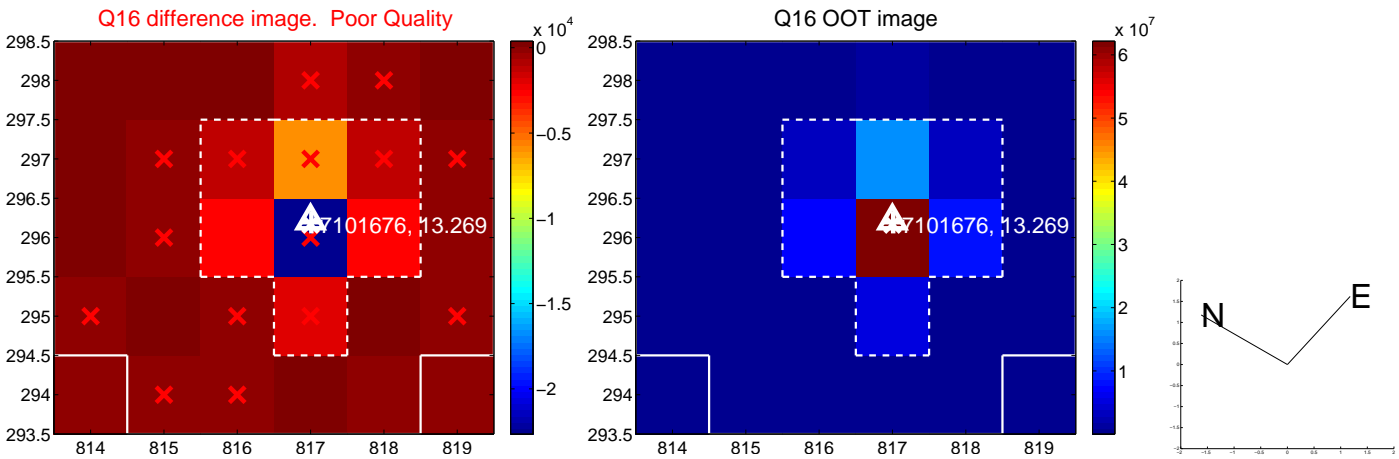
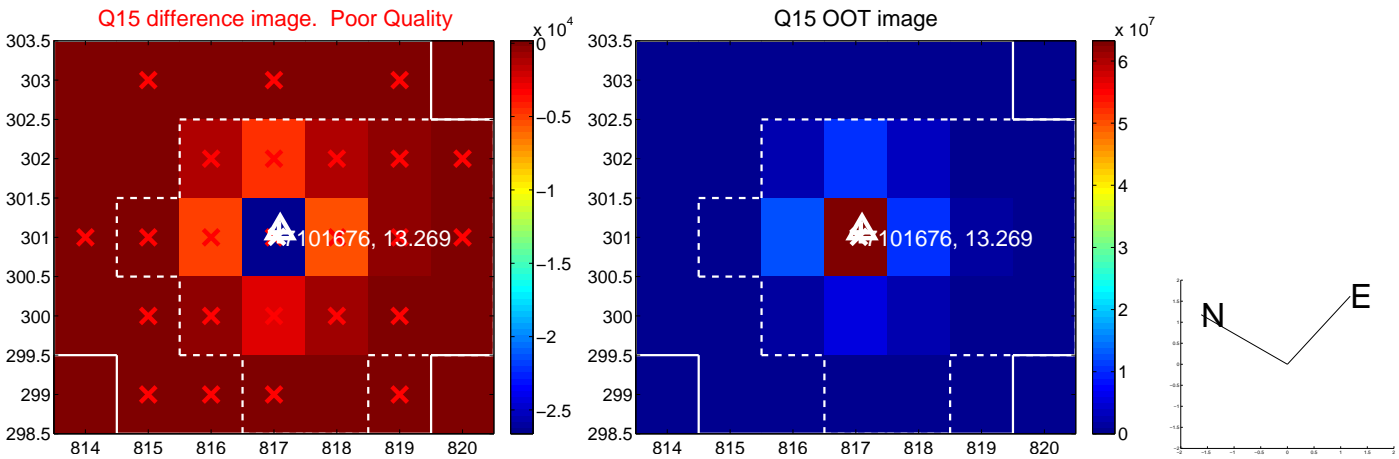
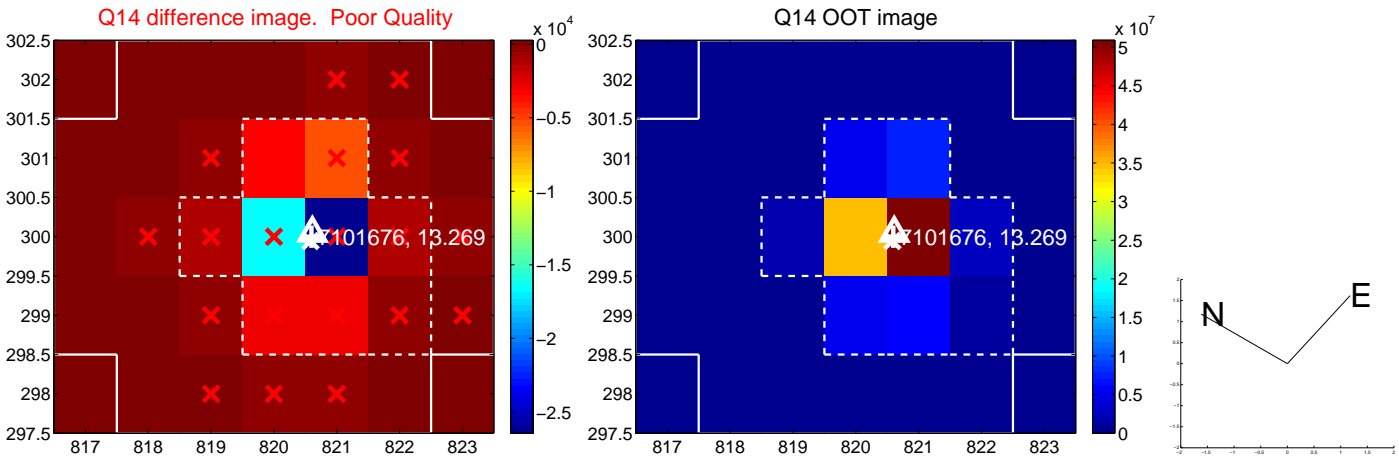
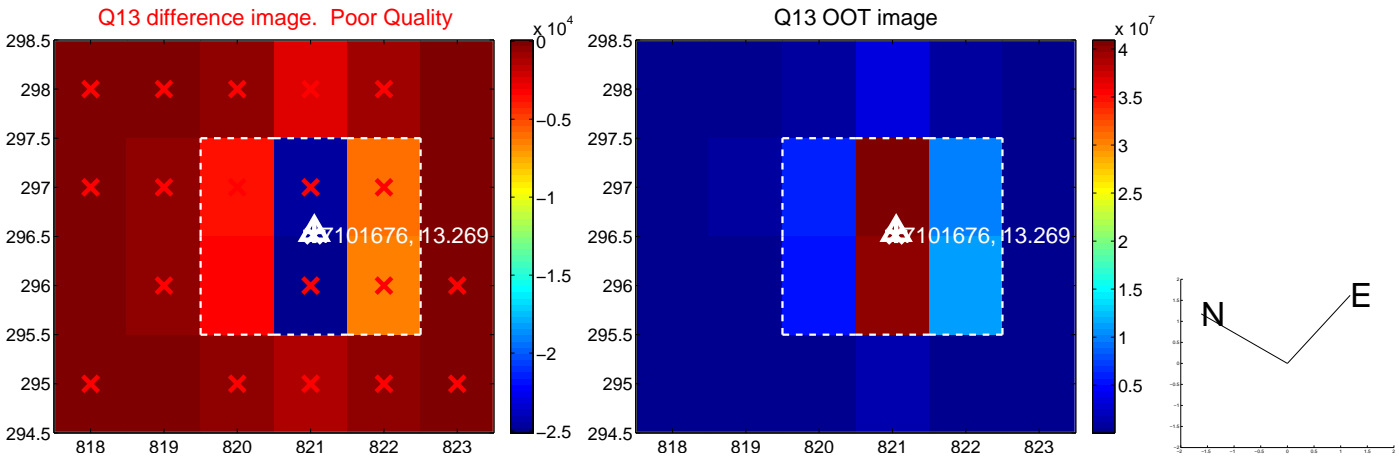
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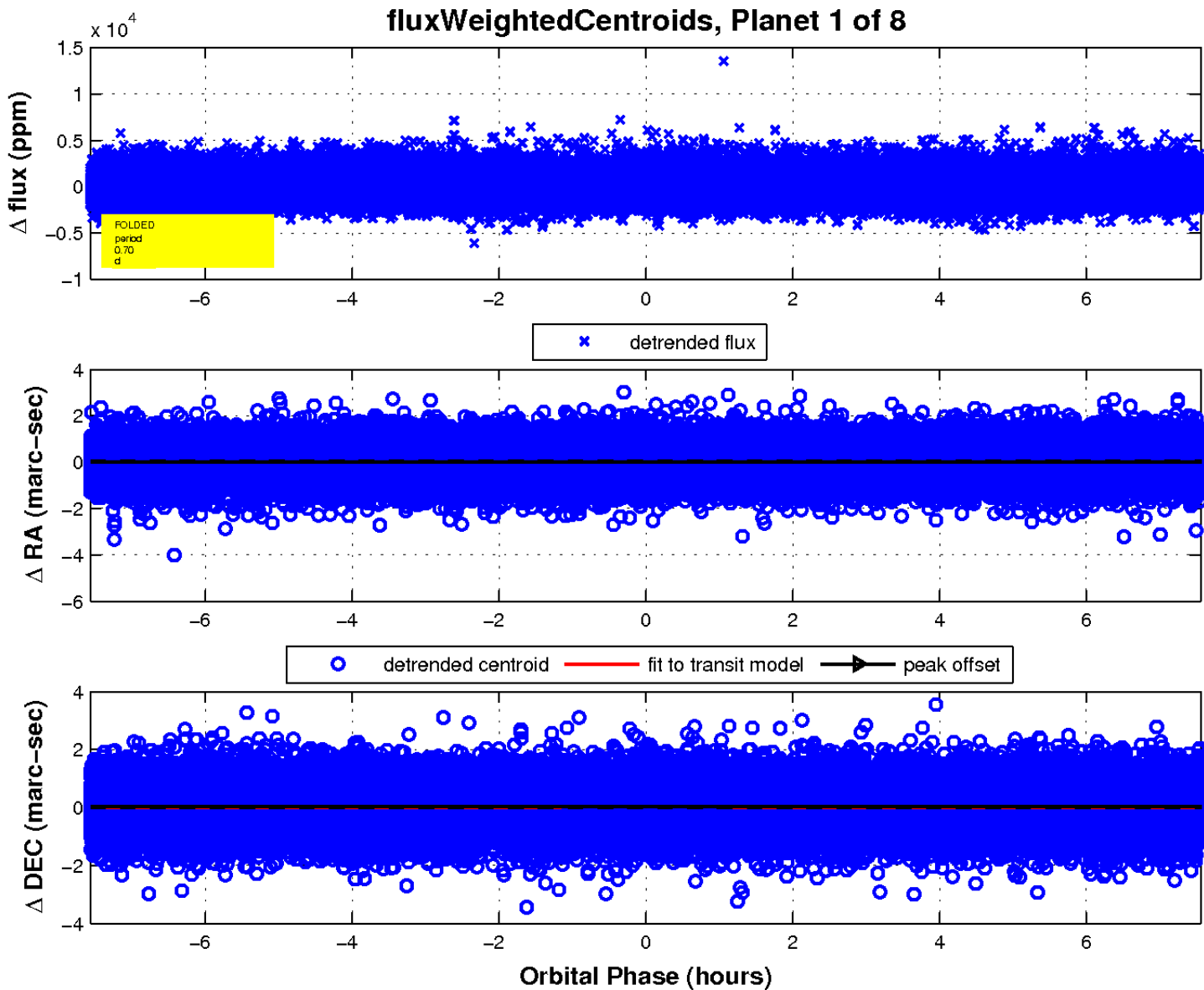
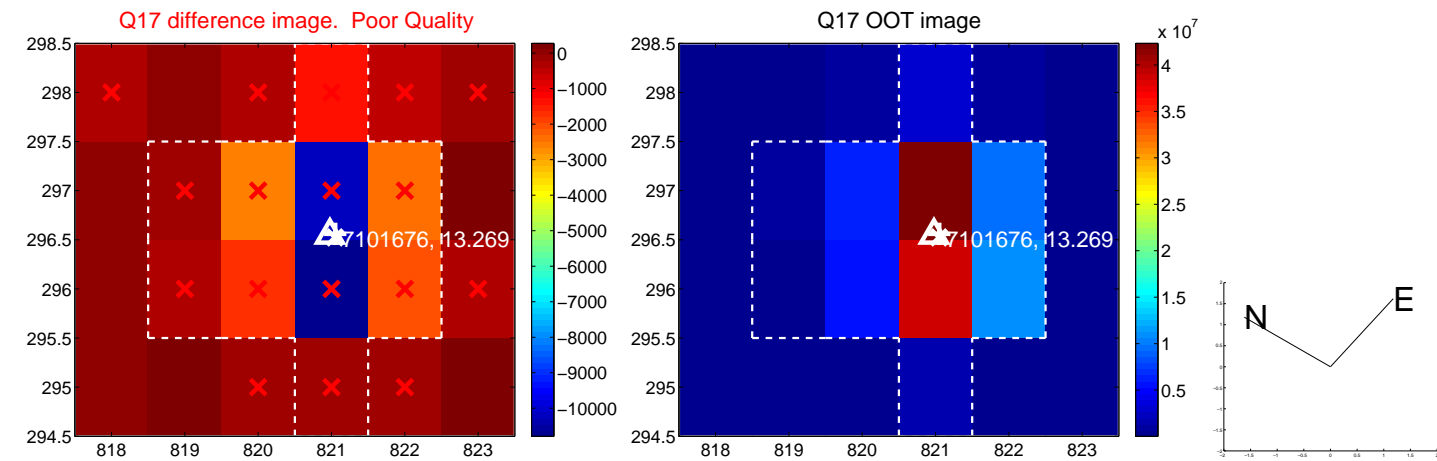
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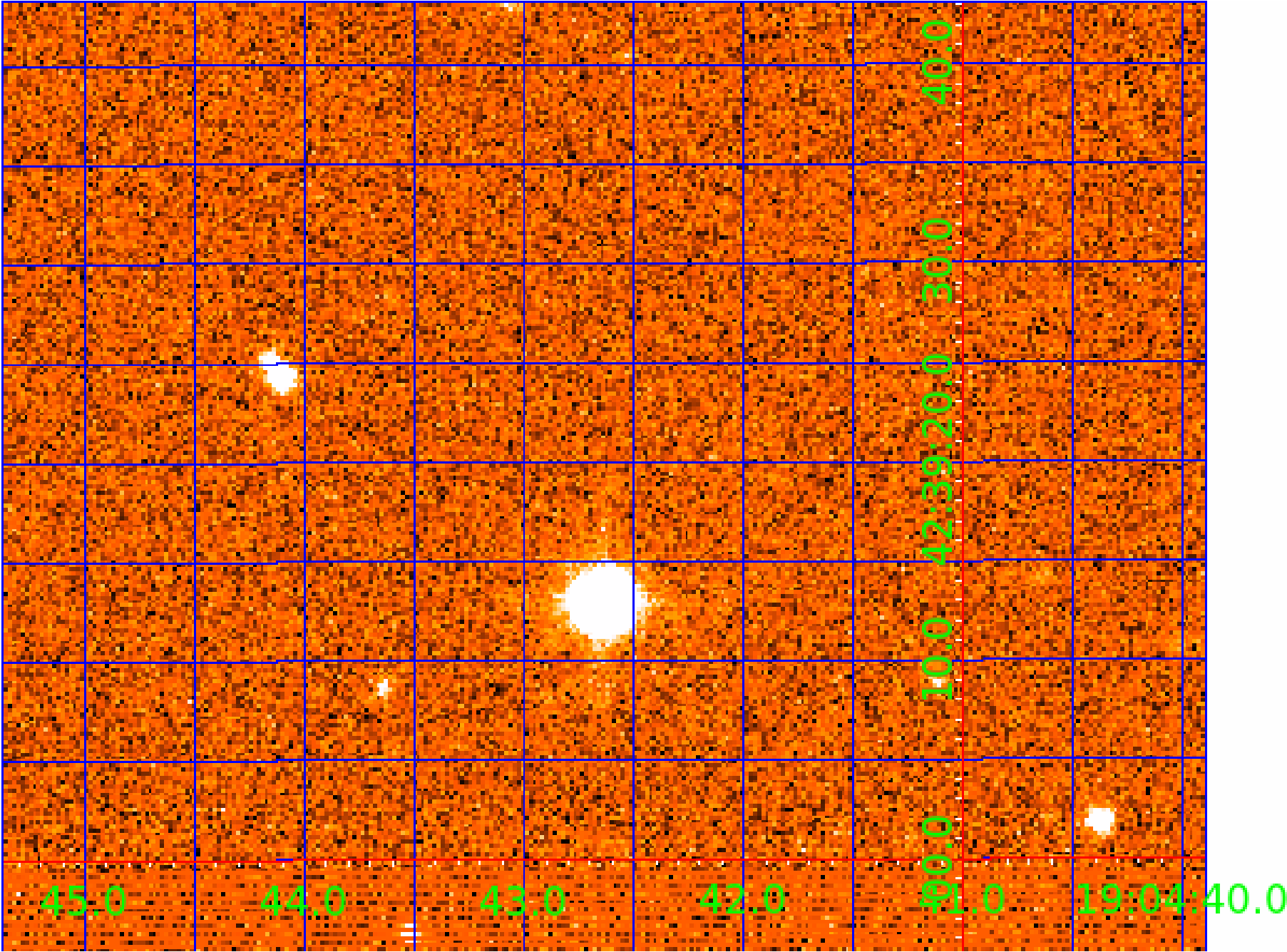


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007101676

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
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007101676-06	OBS	No	10.404243	137.342248	478.1	1.665	8.5	3.3	1.89	7677	4.53	953.51
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Robovetter Results

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007101676-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
007101676-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES
007101676-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007101676-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007101676-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
007101676-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

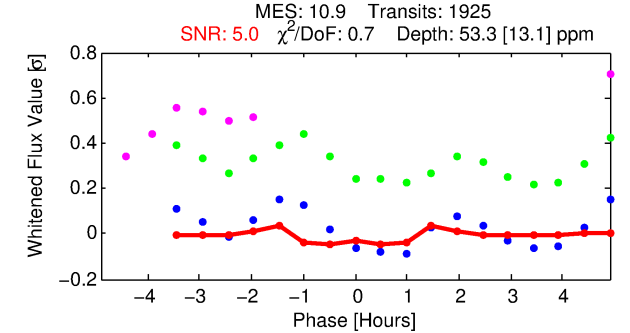
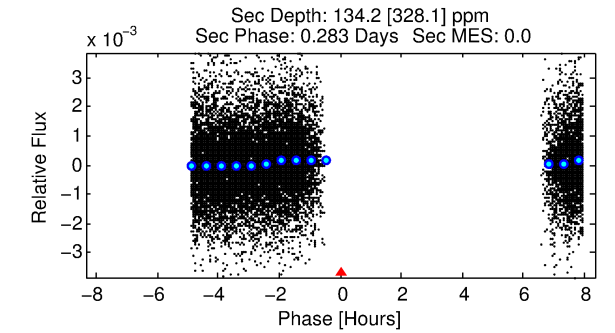
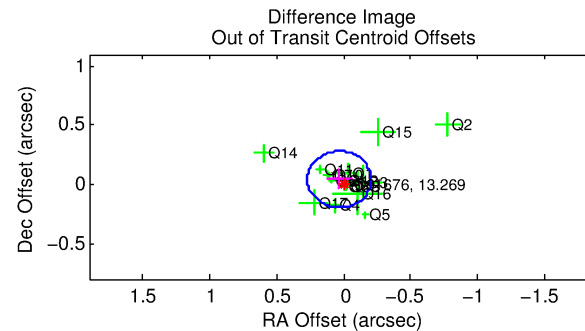
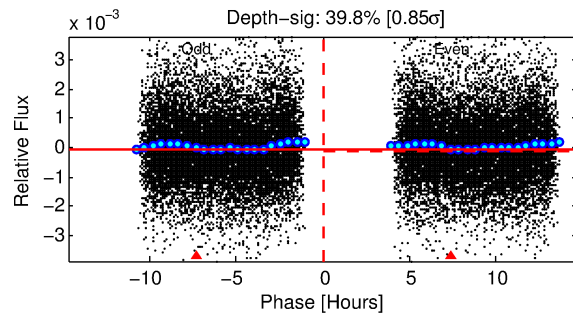
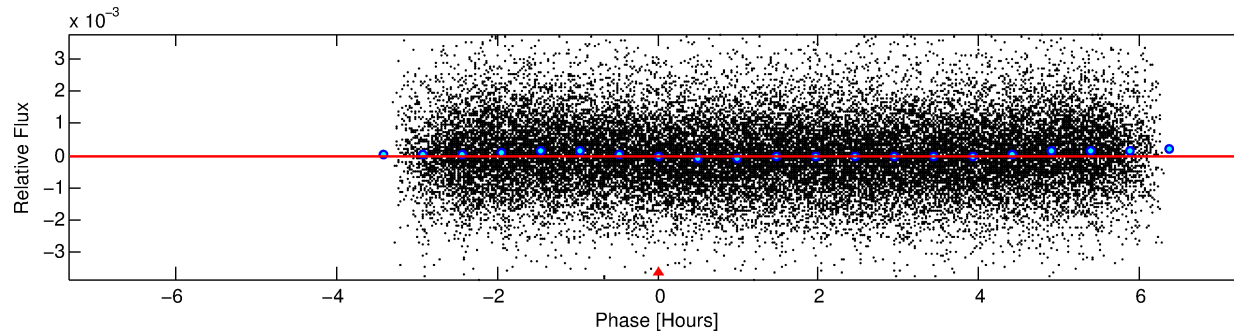
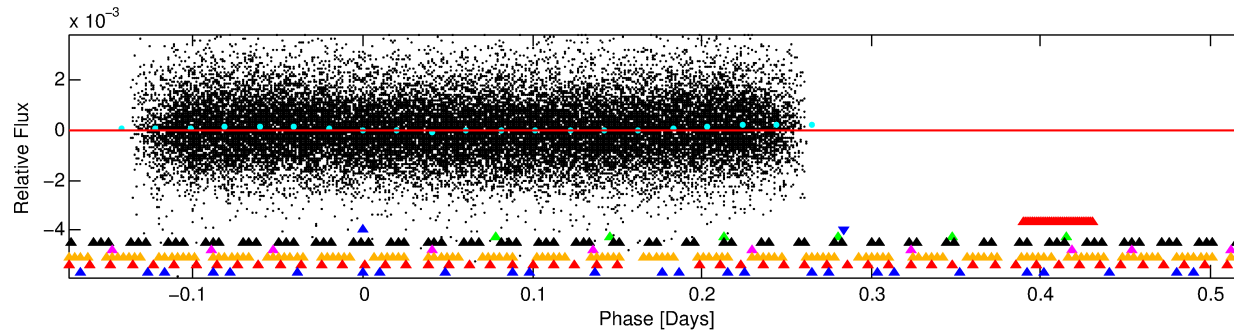
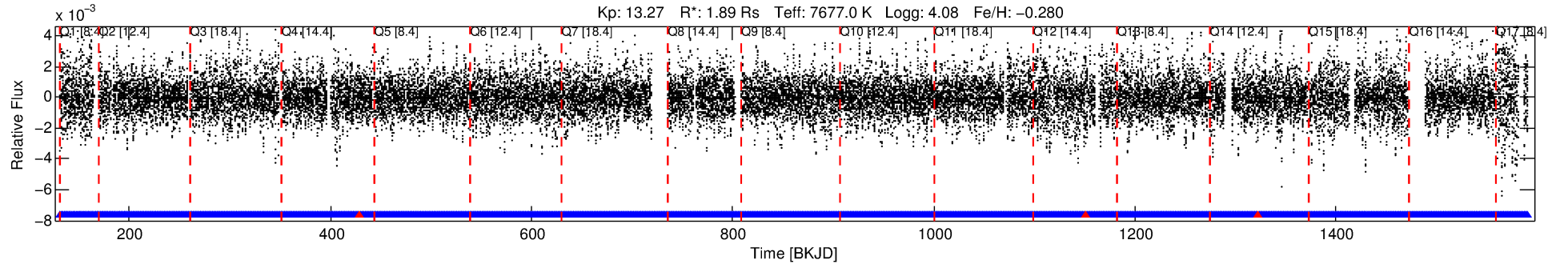
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007101676-02

No Significant Match Found

DV One-Page Summary

KIC: 7101676 Candidate: 2 of 8 Period: 0.696 d



DV Fit Results:

Period = 0.69573 [0.00002] d
Epoch = 131.8120 [0.0023] BKJD
Rp/R* = 0.0078 [0.0030]
a/R* = 1.37 [1.39]
b = 0.90 [0.48]
Seff = 35130.38 [12519.31]
Teq = 3491 [311] K
Rp = 1.61 [0.76] Re
a = 0.0178 [0.0041] AU
Ag = 9.06 [23.38] [0.34 σ]
Teffp = 9363 [6005] K [0.98 σ]

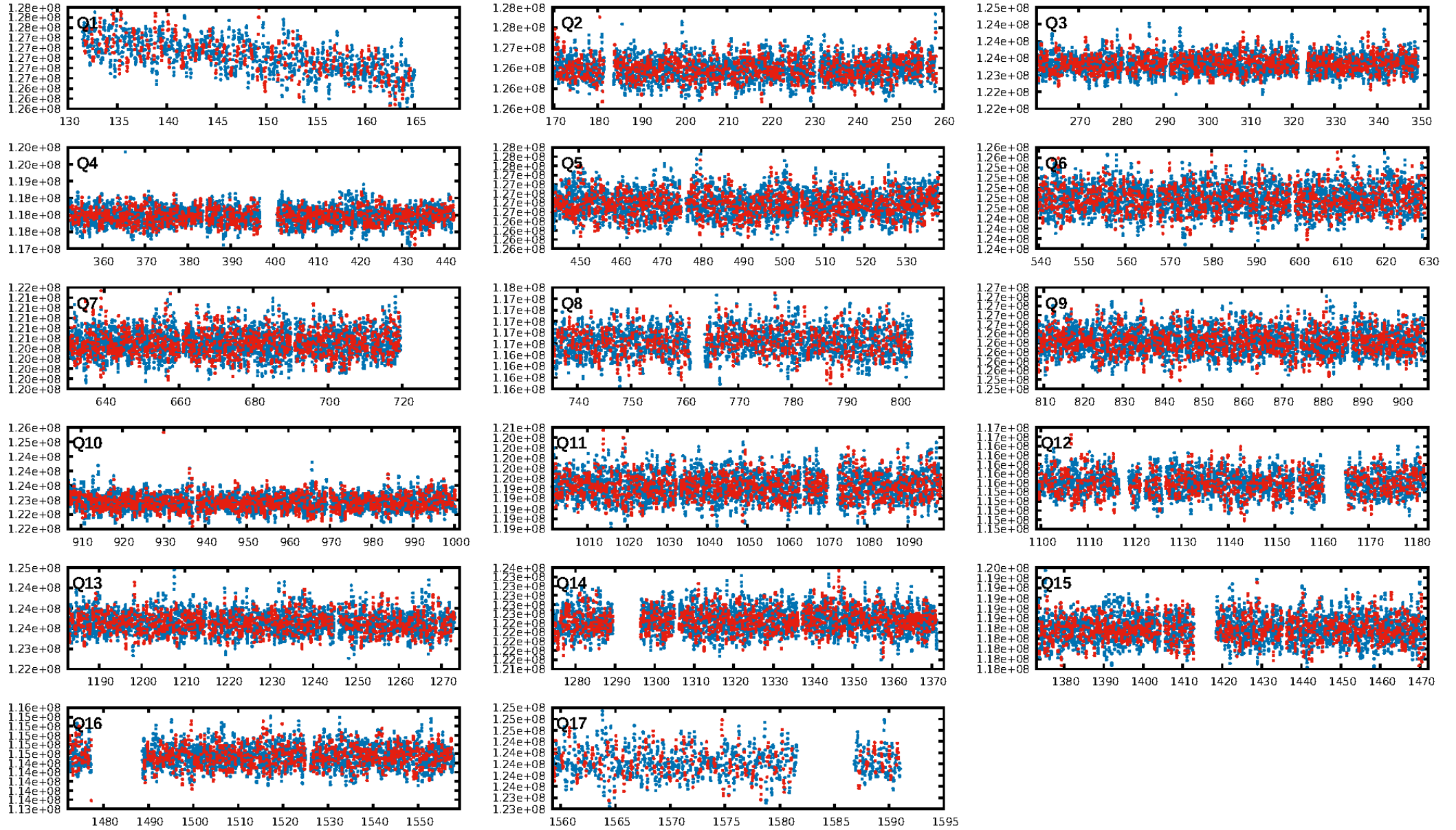
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00 σ]
LongPeriod-sig: 100.0% [78.84 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1835/1839]
GhostDiagnostic-chr: 0.7593
Centroid-sig: 0.9%
Centroid-so: 0.865 arcsec [2.35 σ]
OotOffset-rm: 0.053 arcsec [0.67 σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.199 arcsec [2.26 σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.71 [12/17]
DiffImageOverlap-fno: 0.00 [0/17]

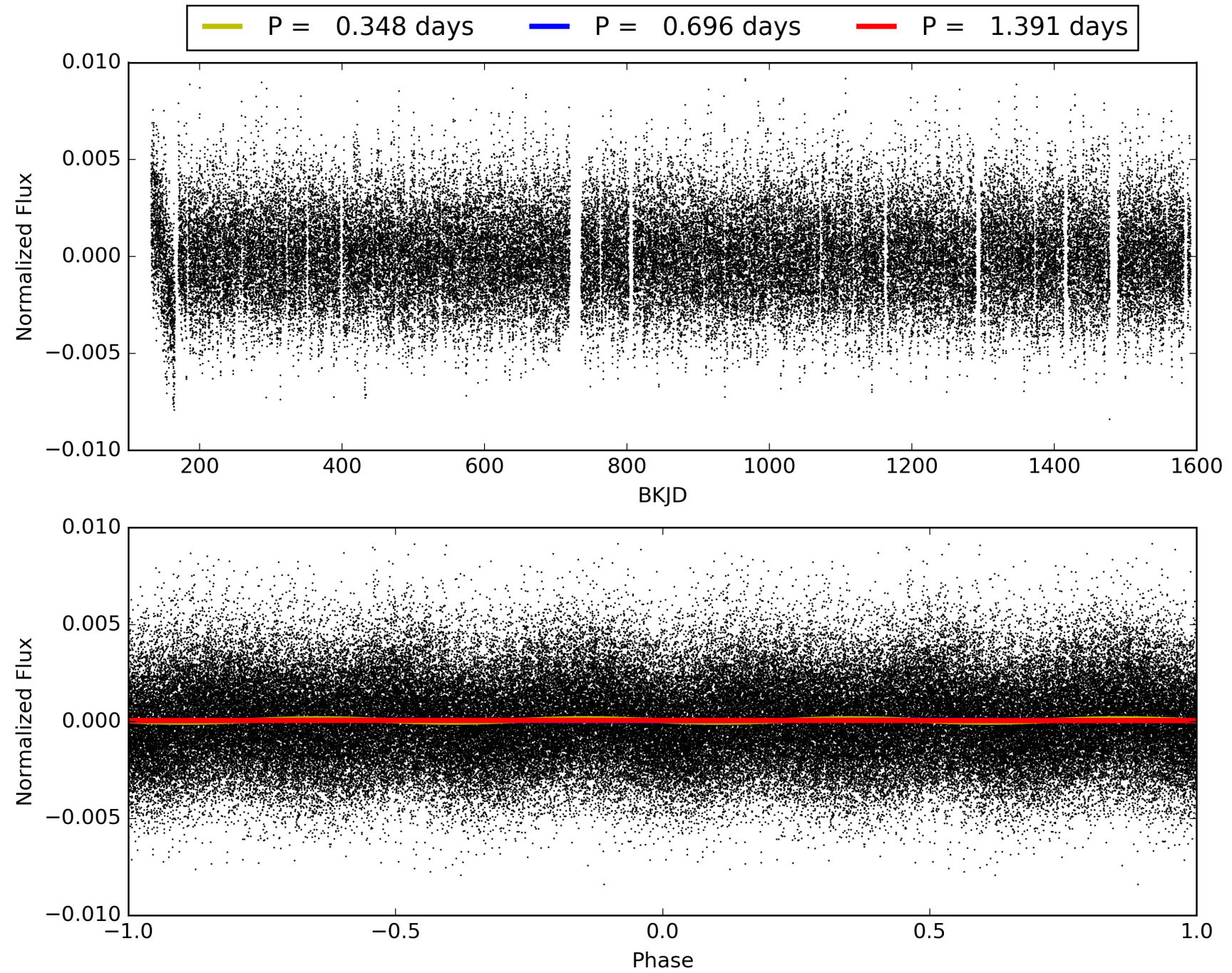
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:59:11 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007101676-02, PDC Light Curves

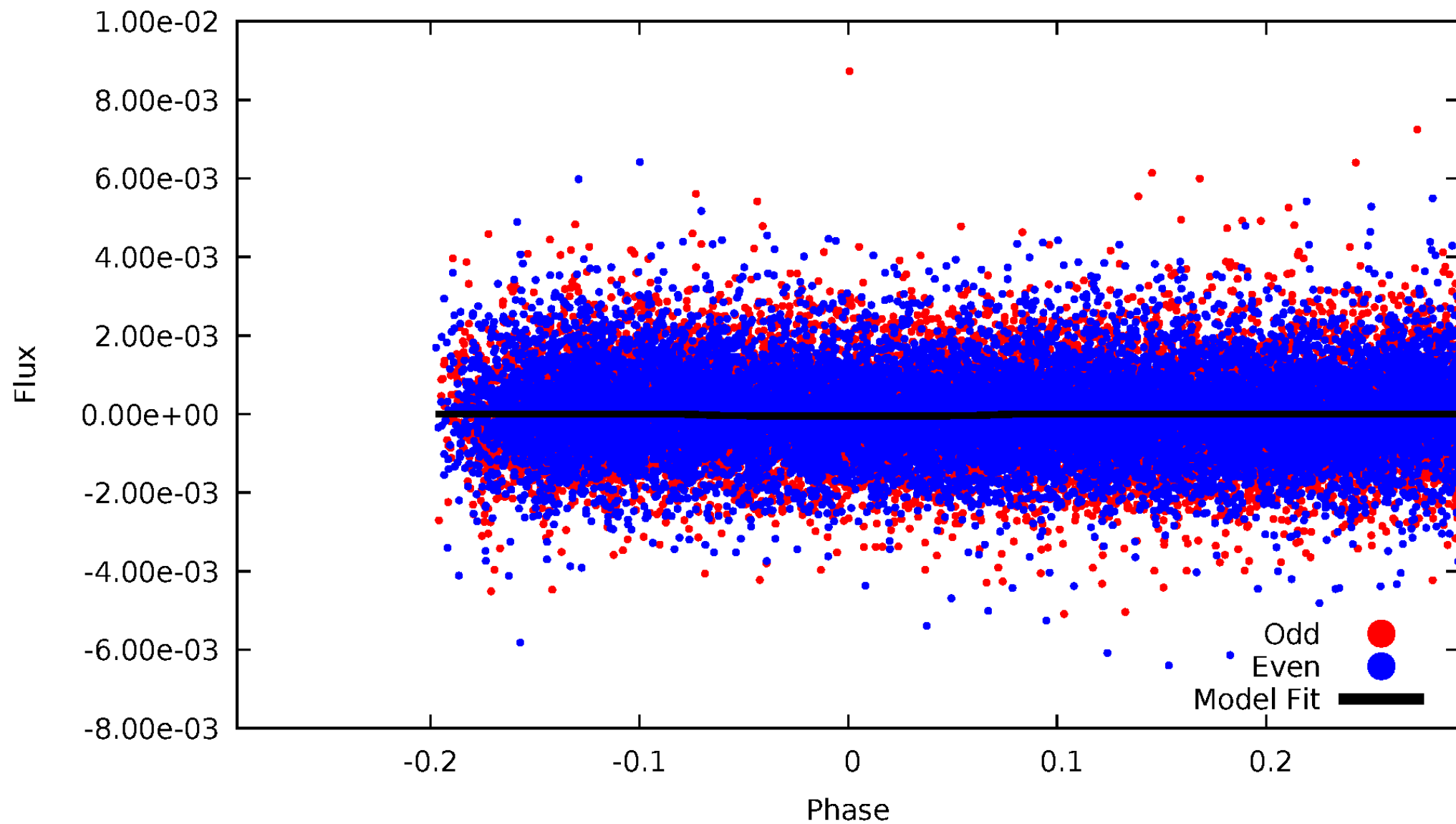


TCE 007101676-02



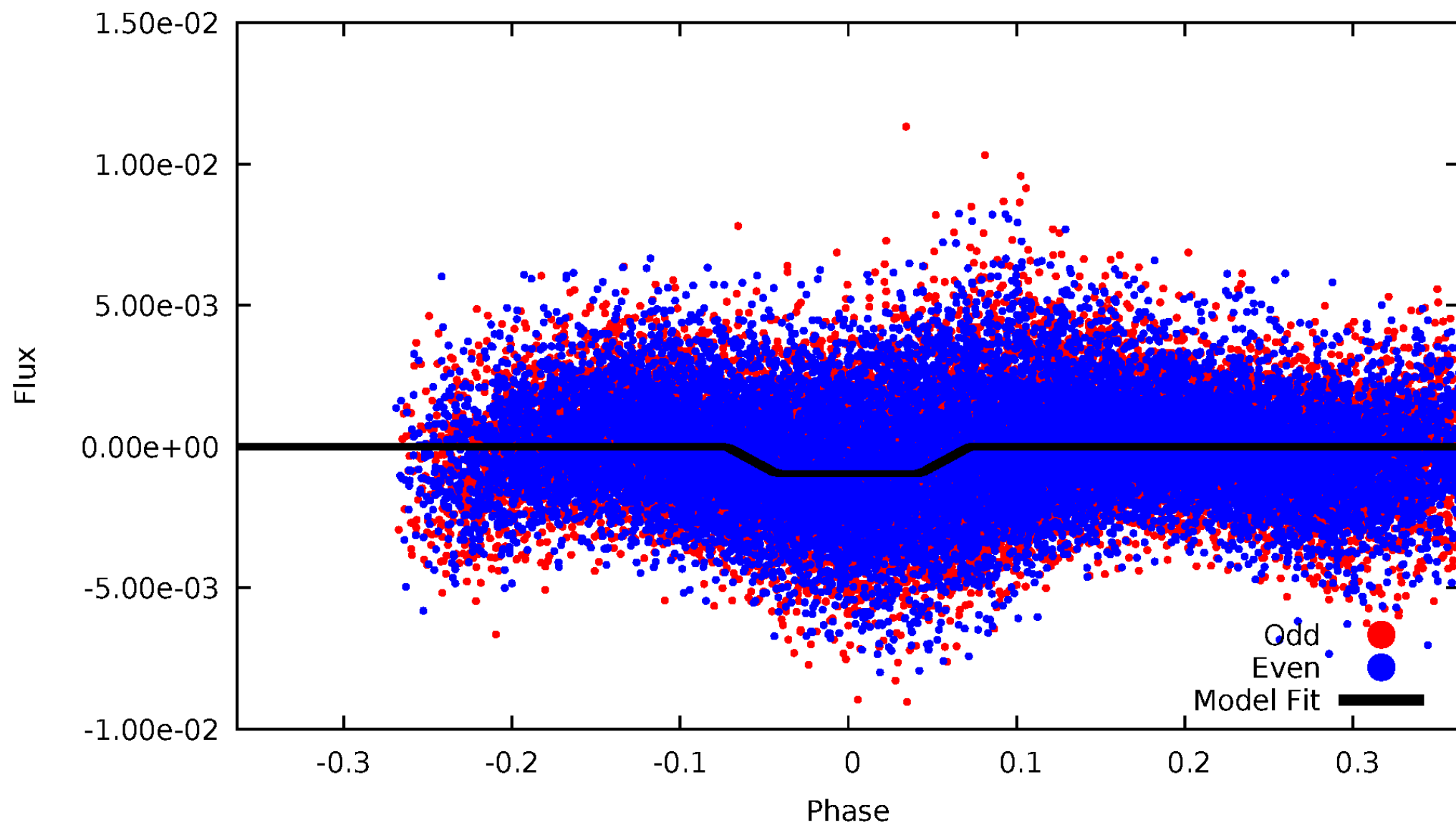
DV Odd/Even

TCE 007101676-02



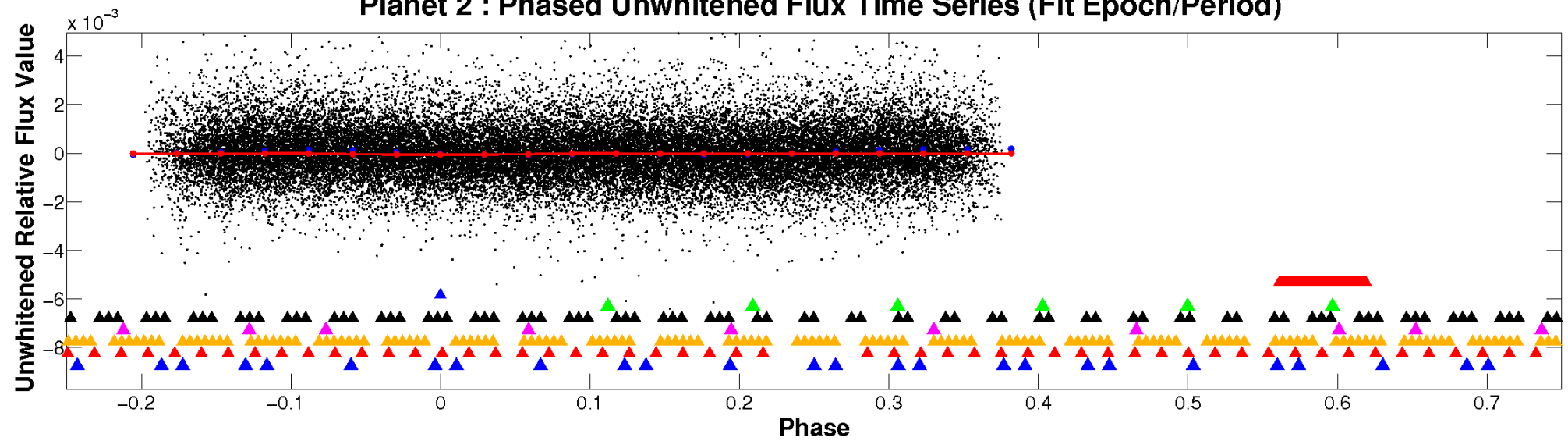
ALT Odd/Even

TCE 007101676-02

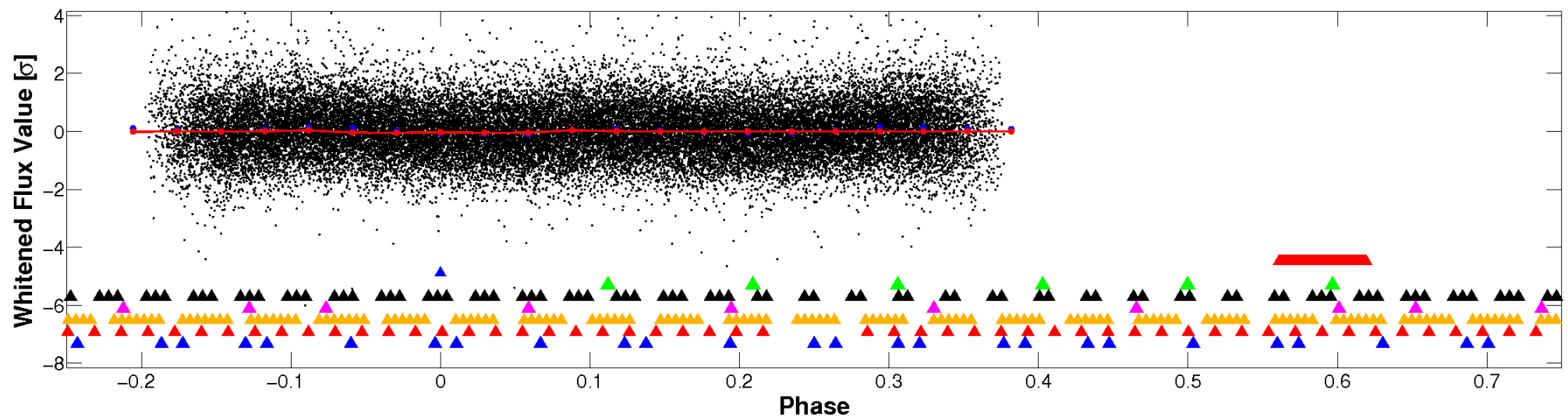


Non-Whitened Vs. Whitened Light Curve

Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

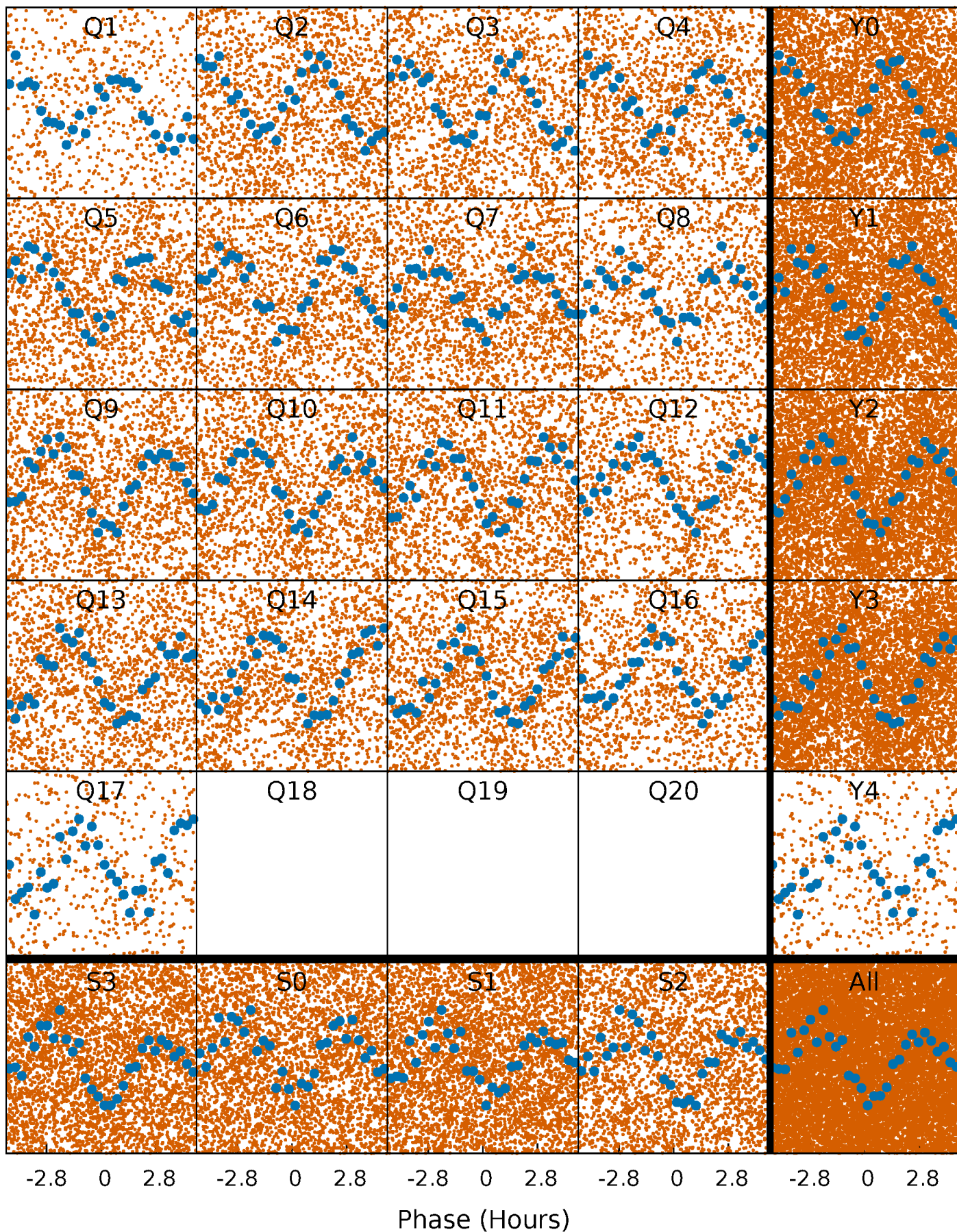


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



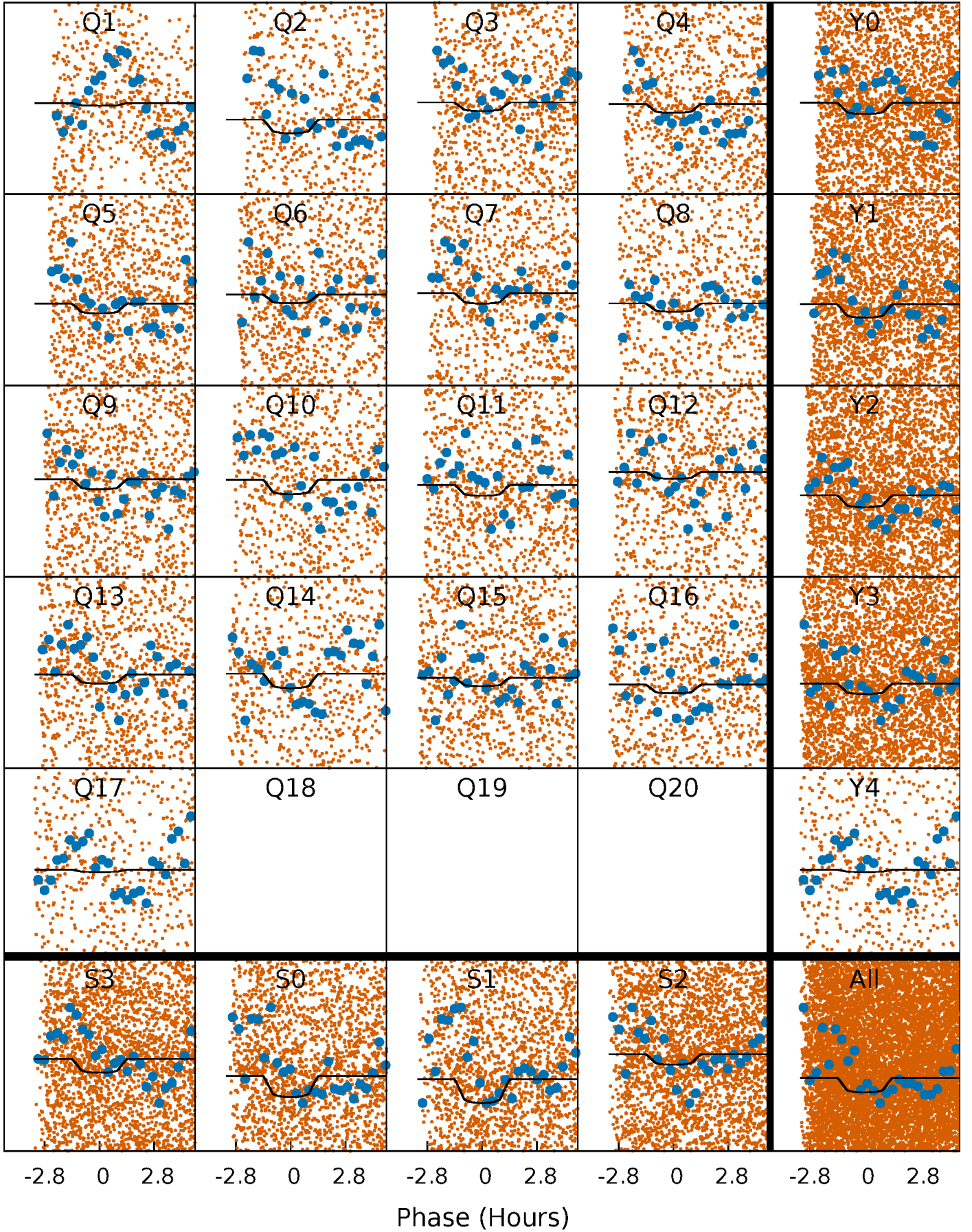
PDC Quarter-Phased Transit Curves

TCE 007101676-02 P= 0.695735 Days $T_0=131.812000$ (BKJD)



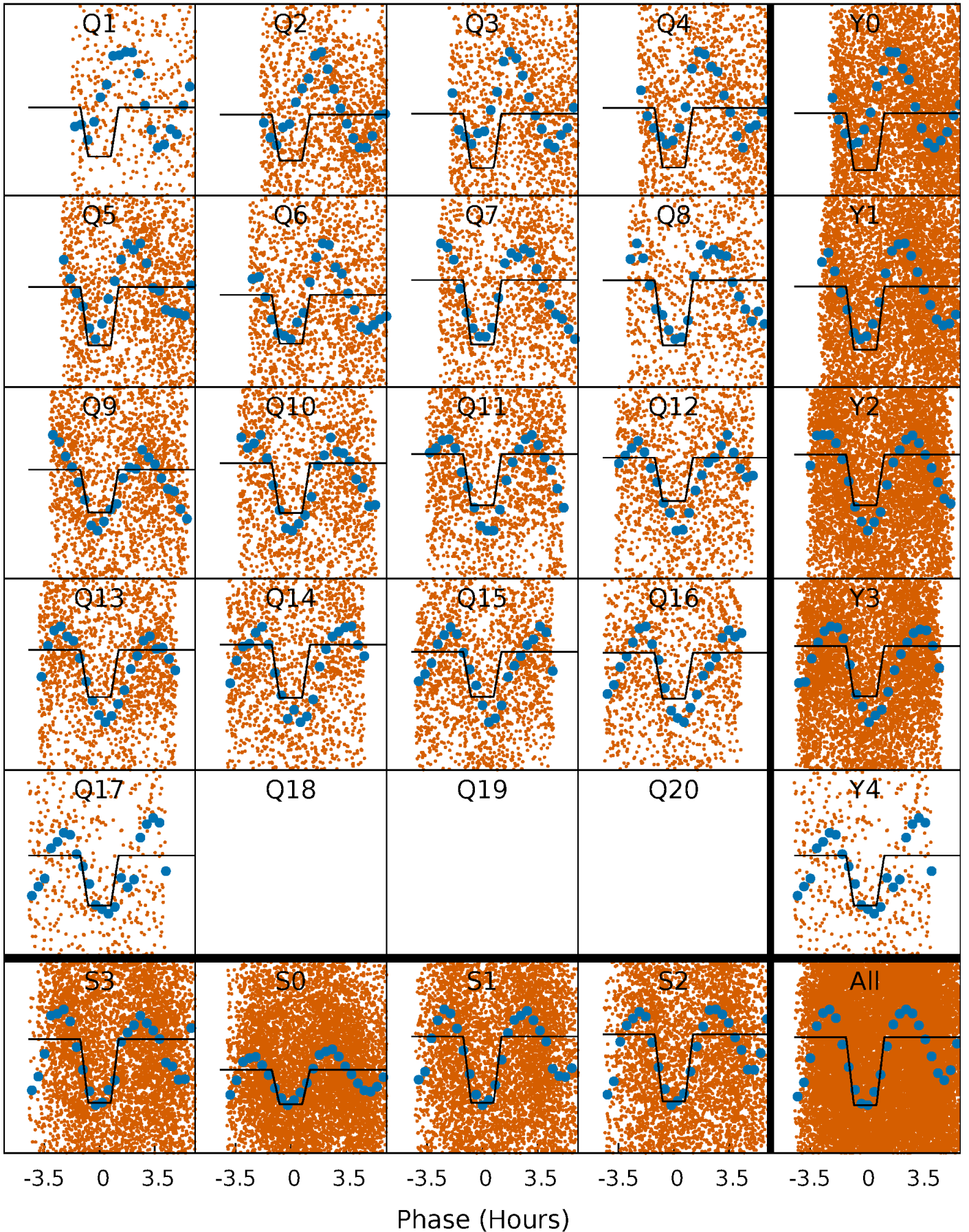
DV Quarter-Phased Transit Curves

TCE 007101676-02 P= 0.695735 Days $T_0=131.812000$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

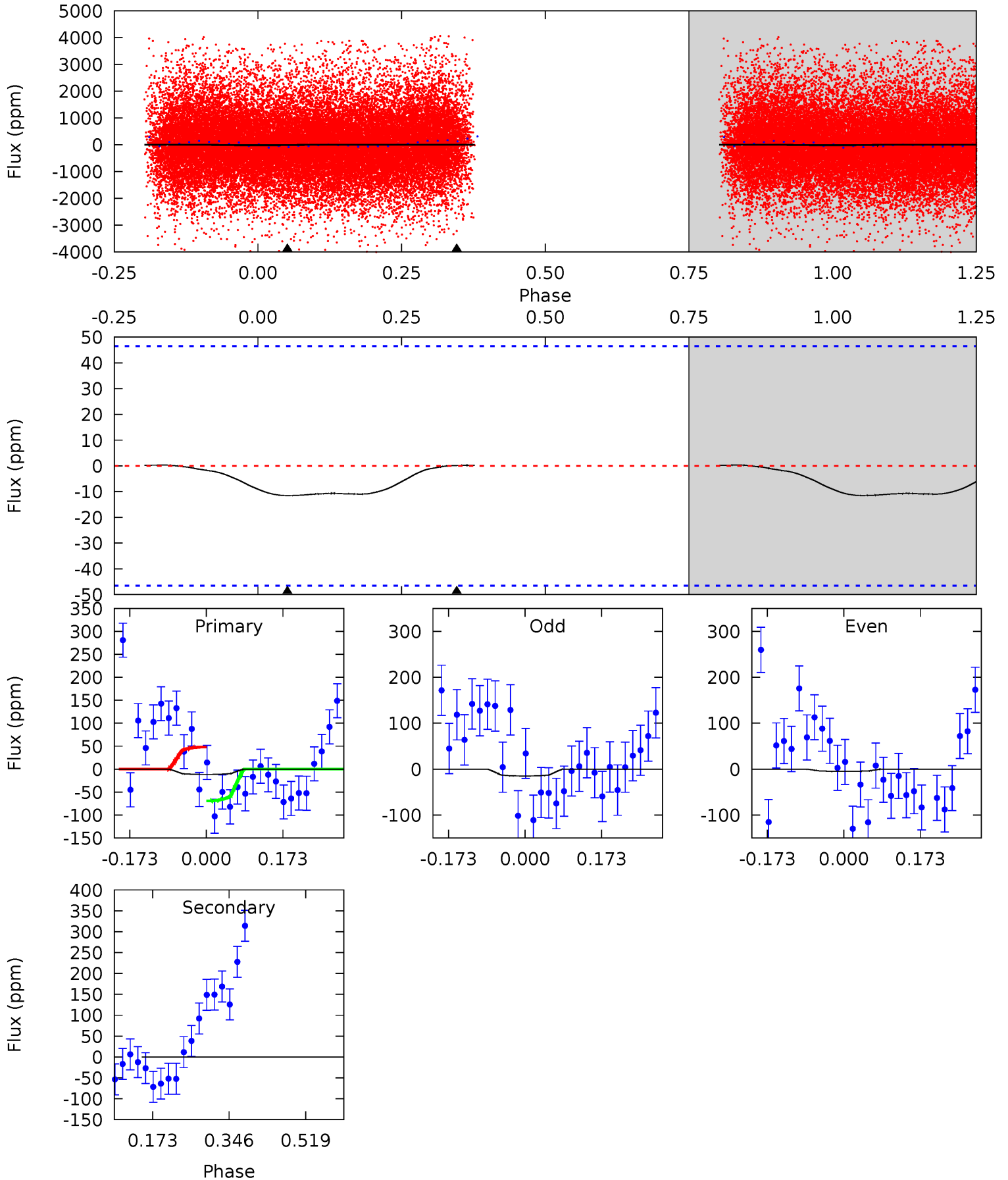
TCE 007101676-02 P= 0.695771 Days $T_0=131.786009$ (BKJD)



DV Model-Shift Uniqueness Test

007101676-02, P = 0.695735 Days, E = 131.116265 Days

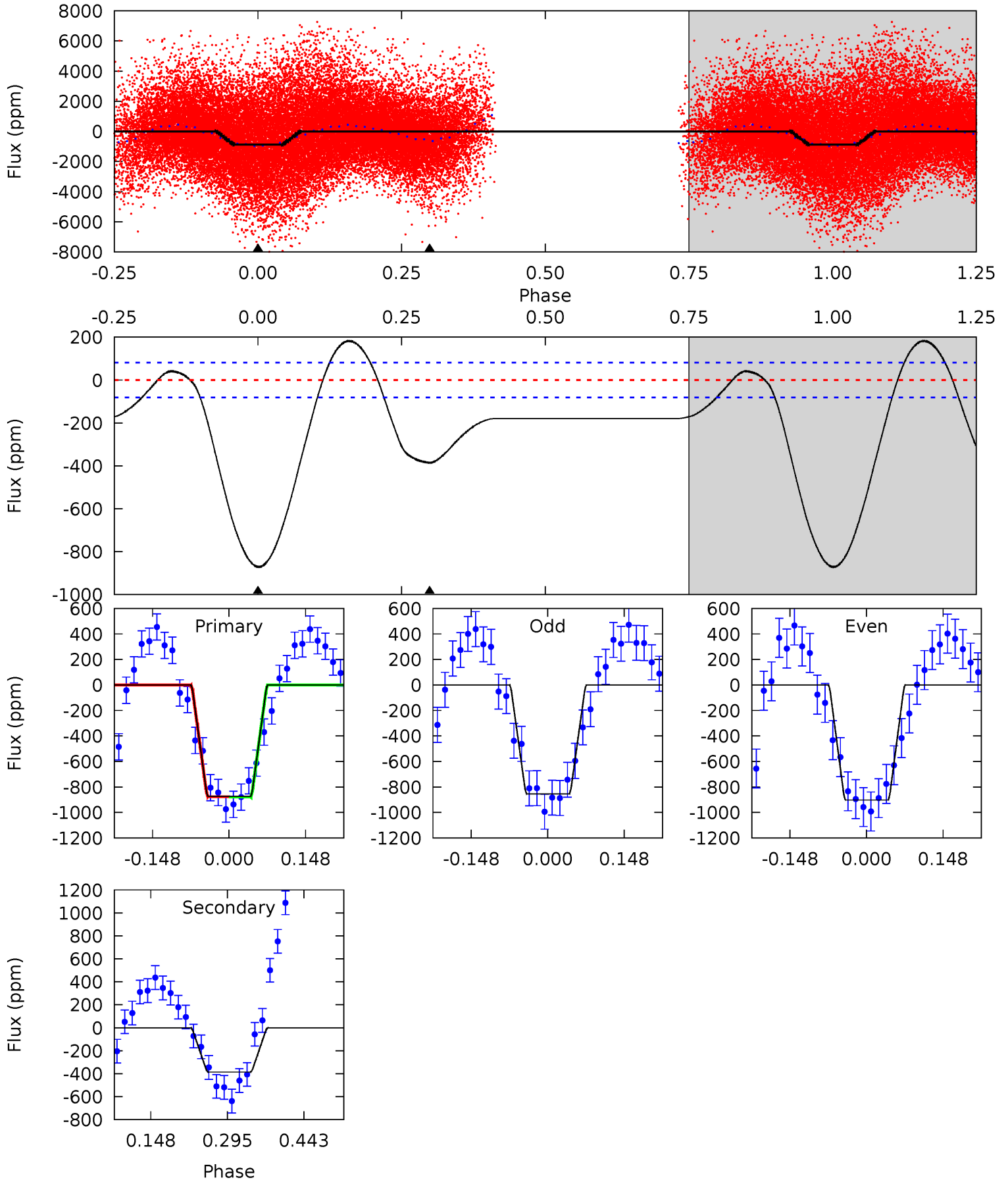
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.11	-0.01	0	0	4.45	1.36	0.03	1.11	1.11	-0.01	-0.01	0.49	0.06	0.02	1.04



Alt Model-Shift Uniqueness Test

007101676-02, P = 0.695771 Days, E = 131.090238 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
48.4	21.4	0	0	4.48	1.45	5.48	48.4	48.4	21.4	21.4	1.36	1.00	0.17	0.10



Stellar Parameters For KIC 007101676

	$T_{\text{eff}}(K)$	$\log(g)$	$[\text{Fe}/\text{H}]$	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7677^{+241}_{-295}	$4.076^{+0.170}_{-0.170}$	$-0.280^{+0.200}_{-0.300}$	$1.892^{+0.533}_{-0.436}$	$1.551^{+0.214}_{-0.235}$	$0.323^{+0.301}_{-0.158}$
	+3%/-4%	+4%/-4%	+71%/-107%	+28%/-23%	+14%/-15%	+93%/-49%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007101676-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	0 ± 10	$1.60^{+0.67}_{-0.64}$	4855^{+354}_{-355}	-4265^{+8741}_{-1155}	$-0.023^{+0.751}_{-0.827}$
Alt.	-386 ± 18	$6.33^{+1.24}_{-1.01}$	4878^{+383}_{-358}	5739^{+392}_{-365}	$1.673^{+0.649}_{-0.466}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

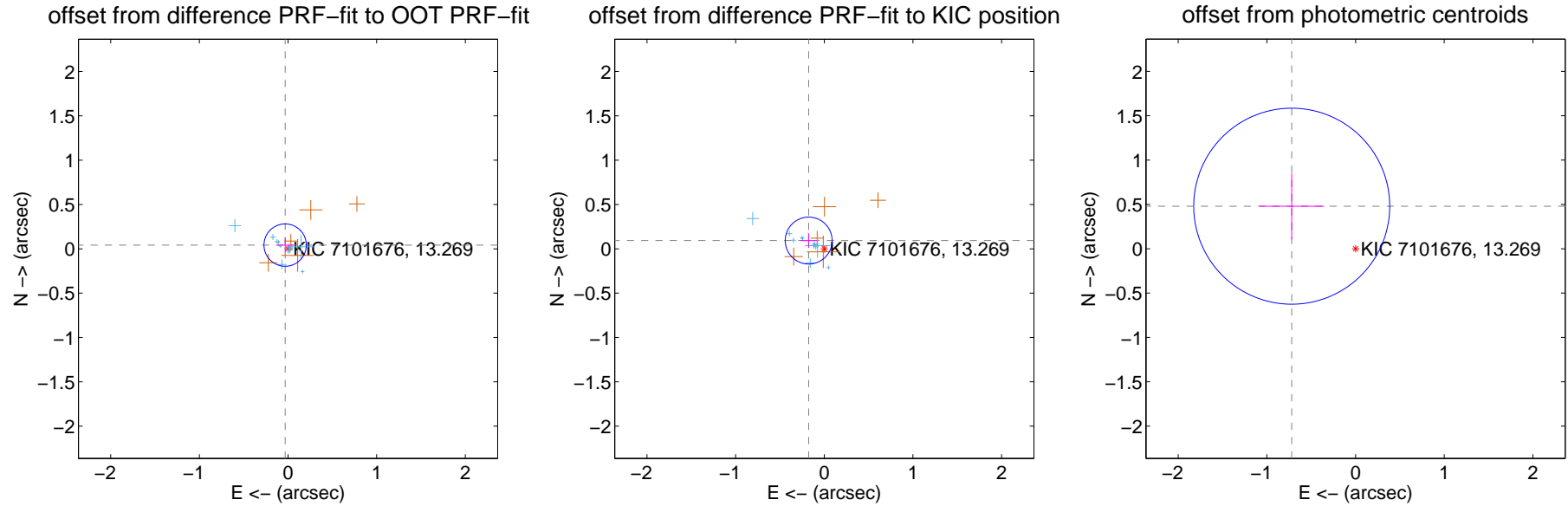
DV Centroid Data

Supplemental centroid analysis for 007101676-02. Kepler magnitude: 13.27. Transit SNR 5.01

There are 12 quarters with good PRF difference image offsets

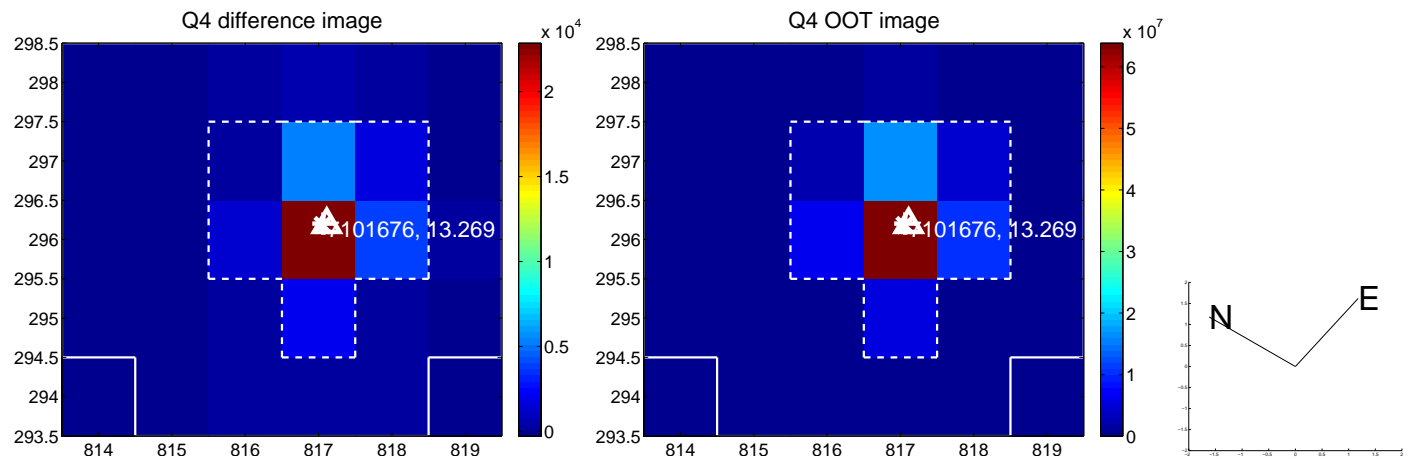
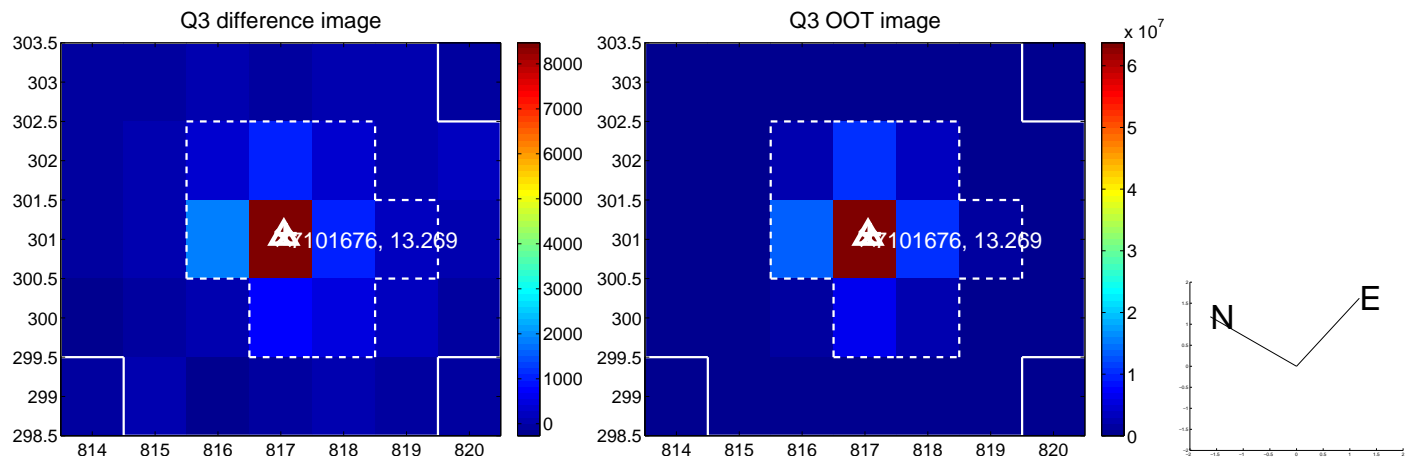
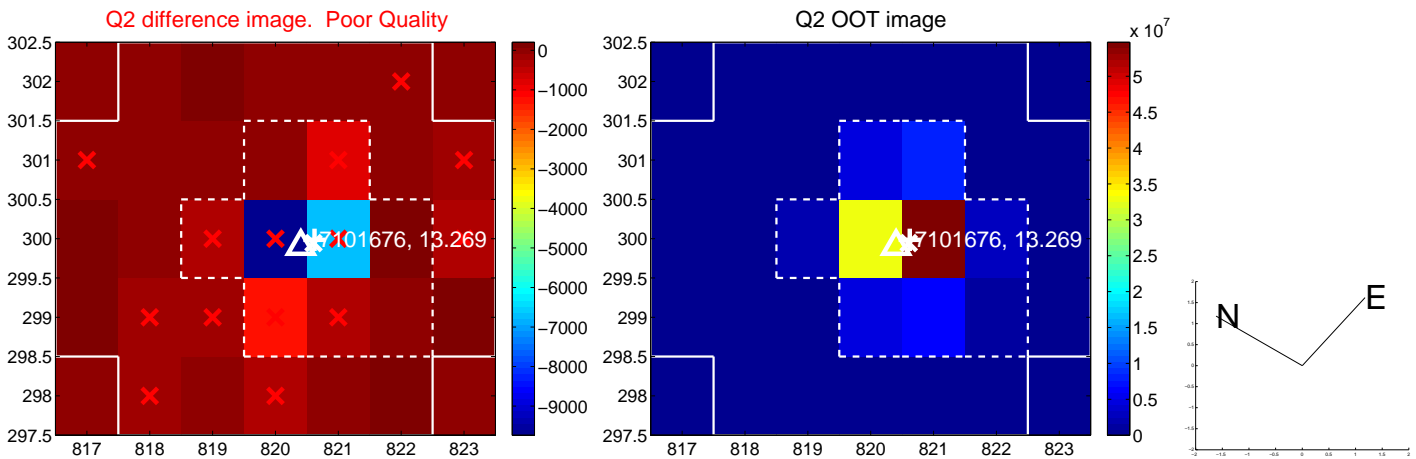
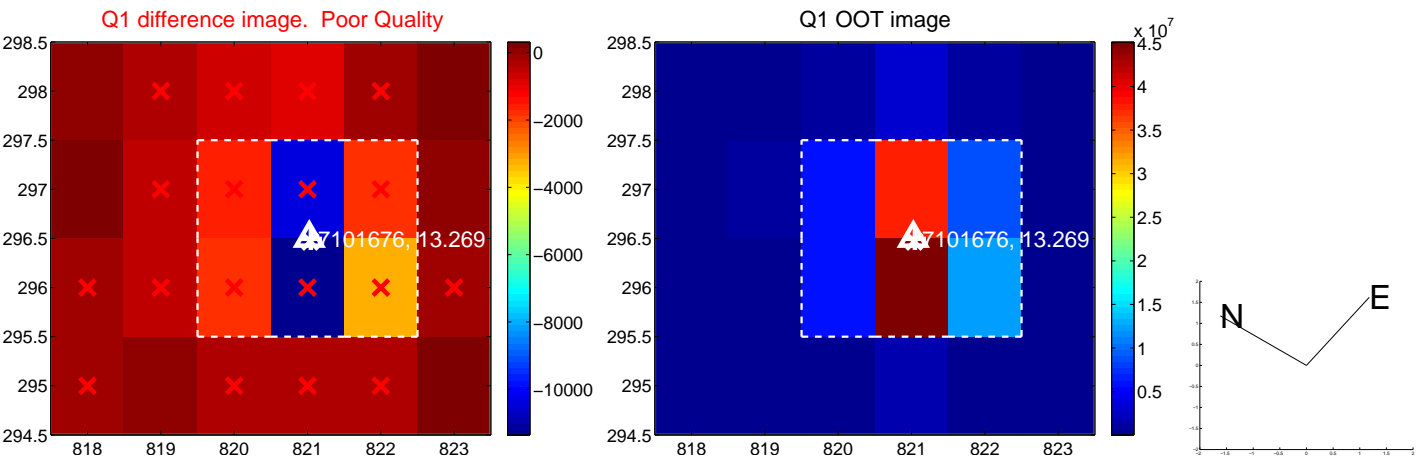
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.053 ± 0.080	0.67	0.032 ± 0.092	0.042 ± 0.080
PRF-fit source offset from KIC position	0.199 ± 0.088	2.26	0.176 ± 0.093	0.093 ± 0.083
photometric centroid source offset	0.87 ± 0.37	2.35	0.72 ± 0.37	0.48 ± 0.37

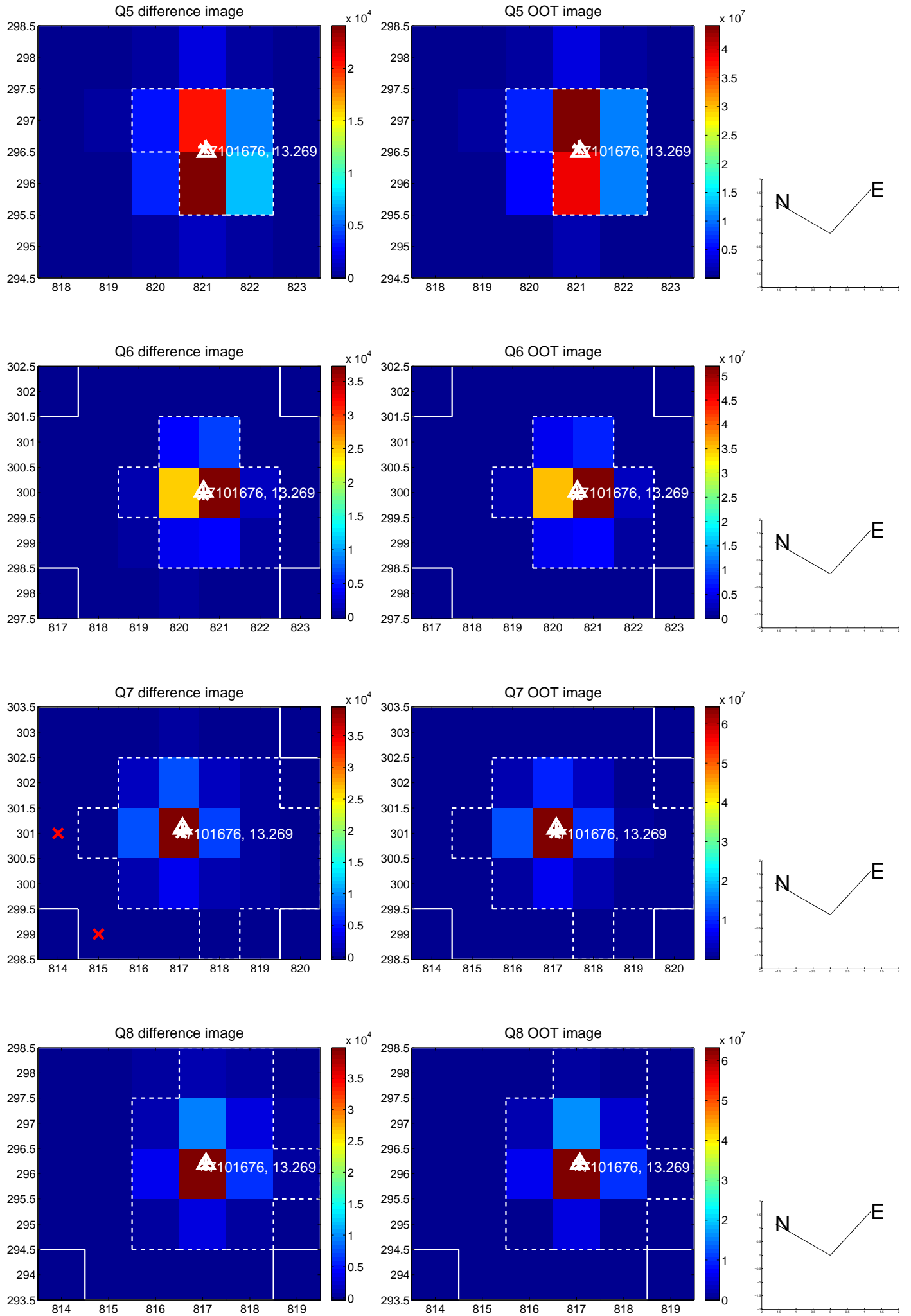


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

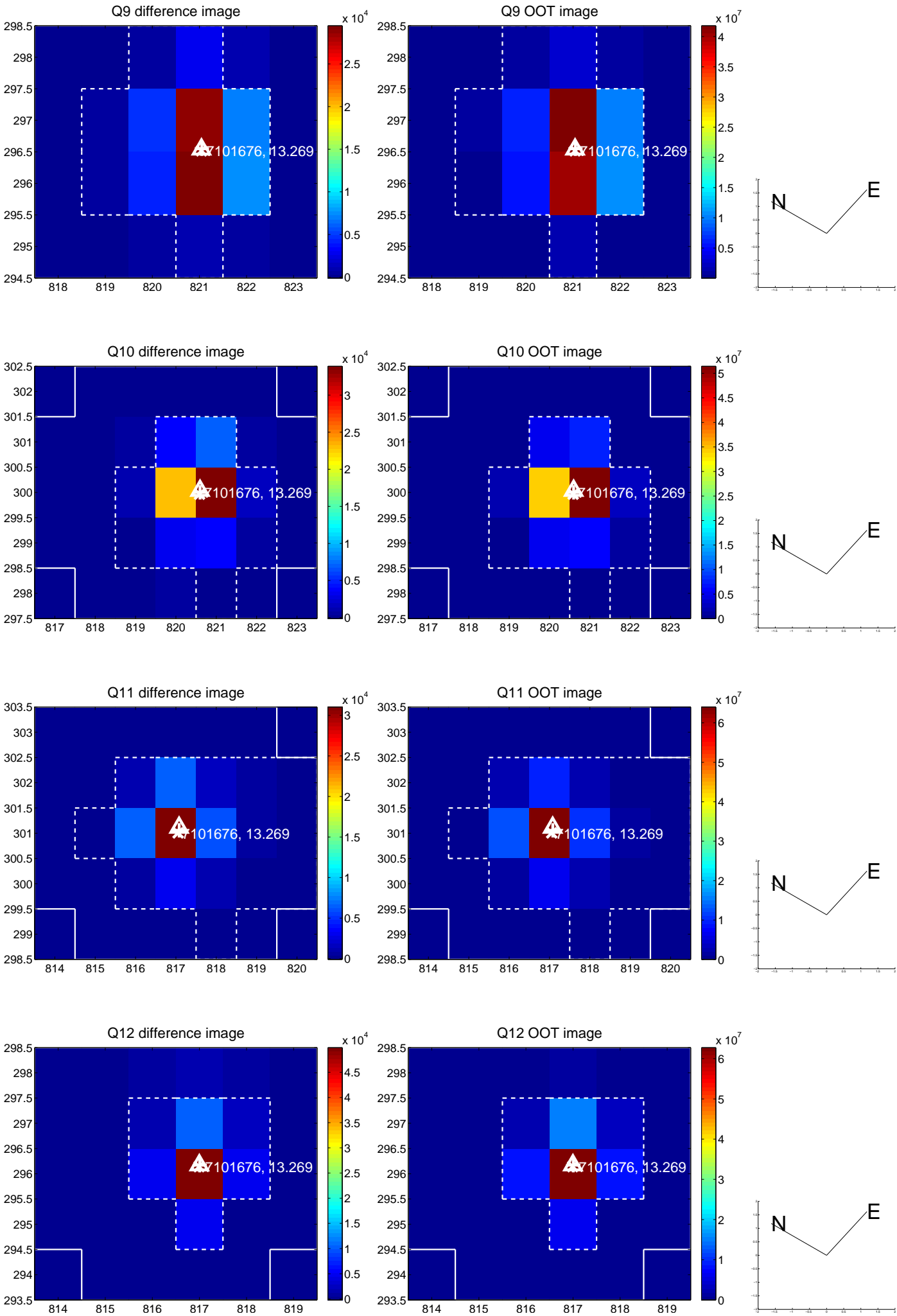
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



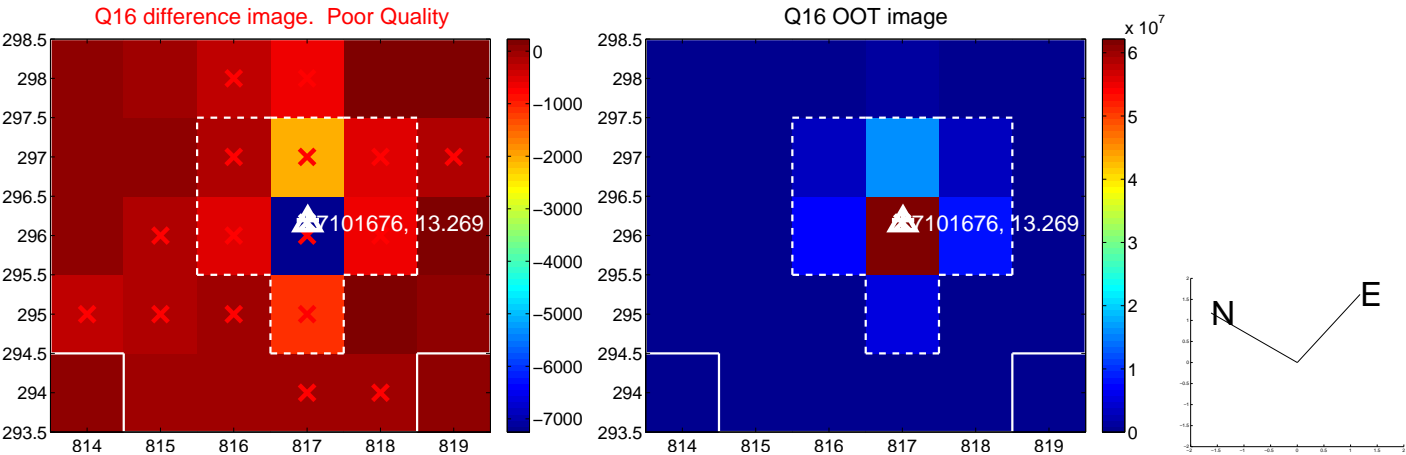
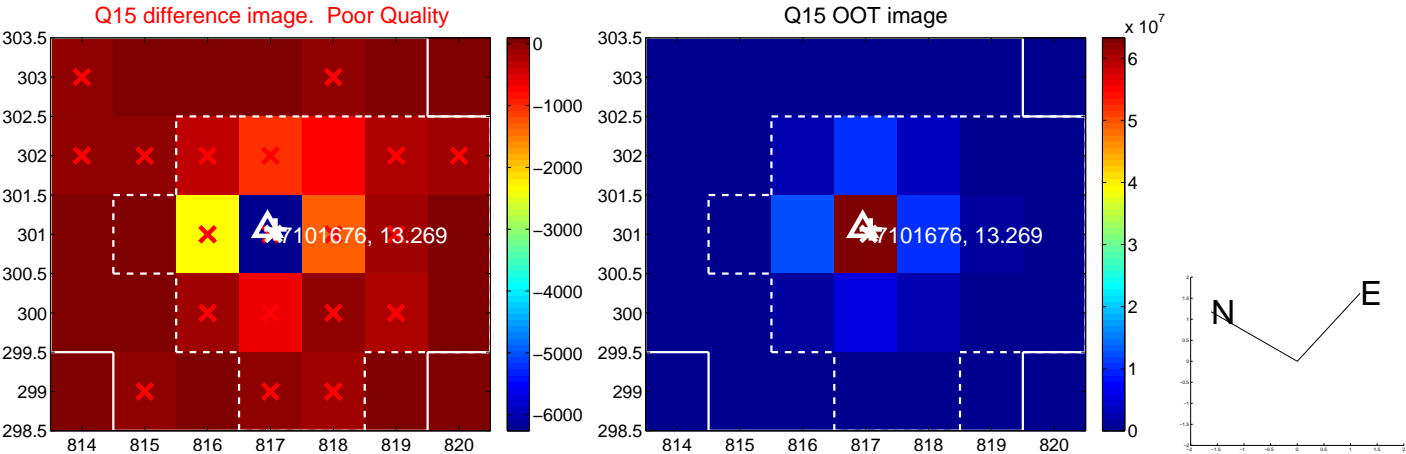
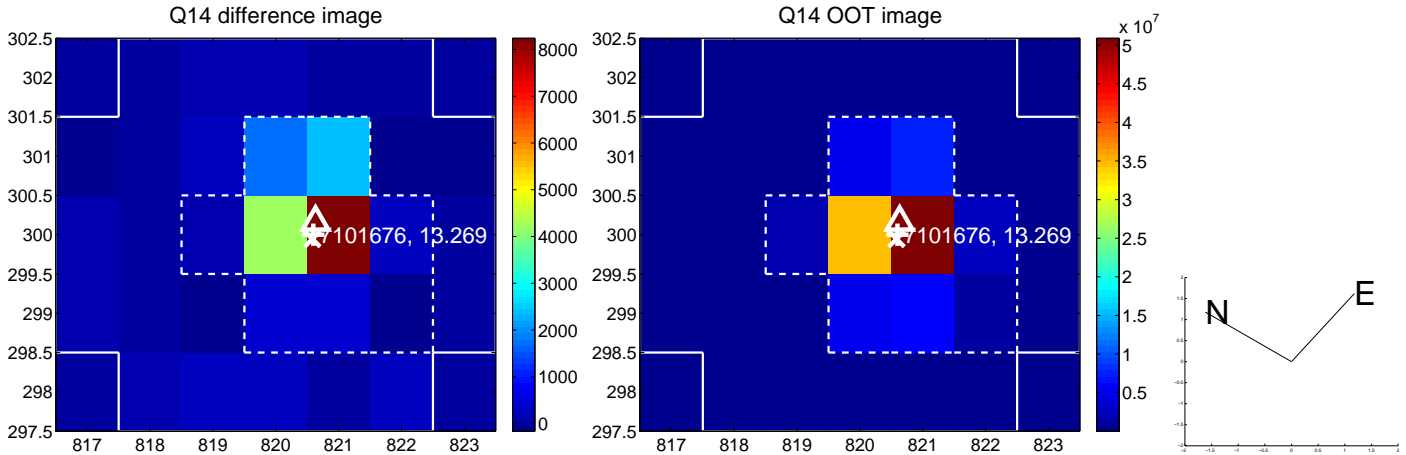
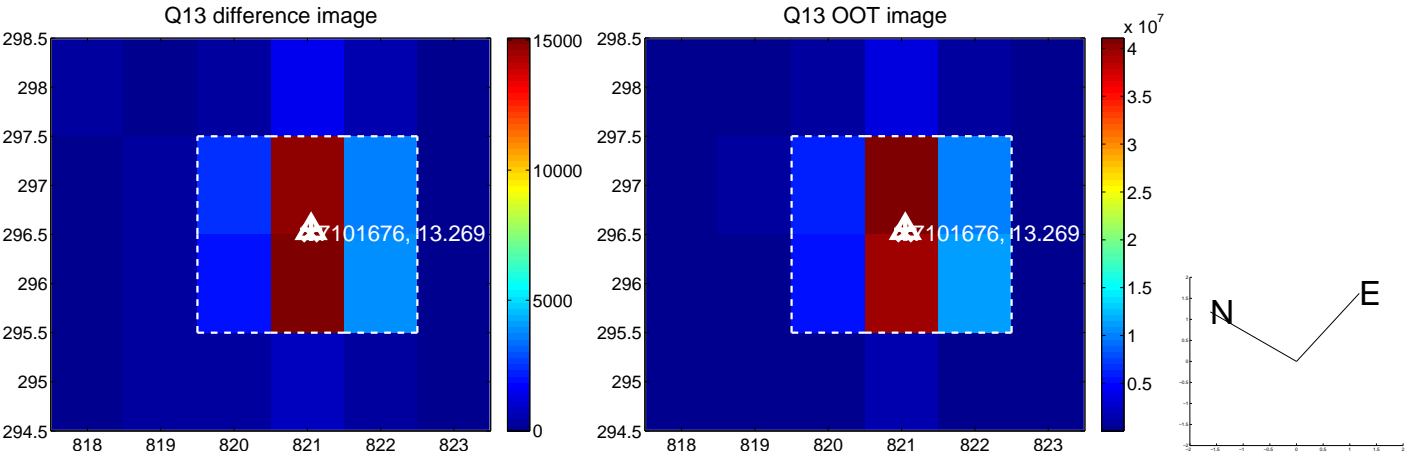
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



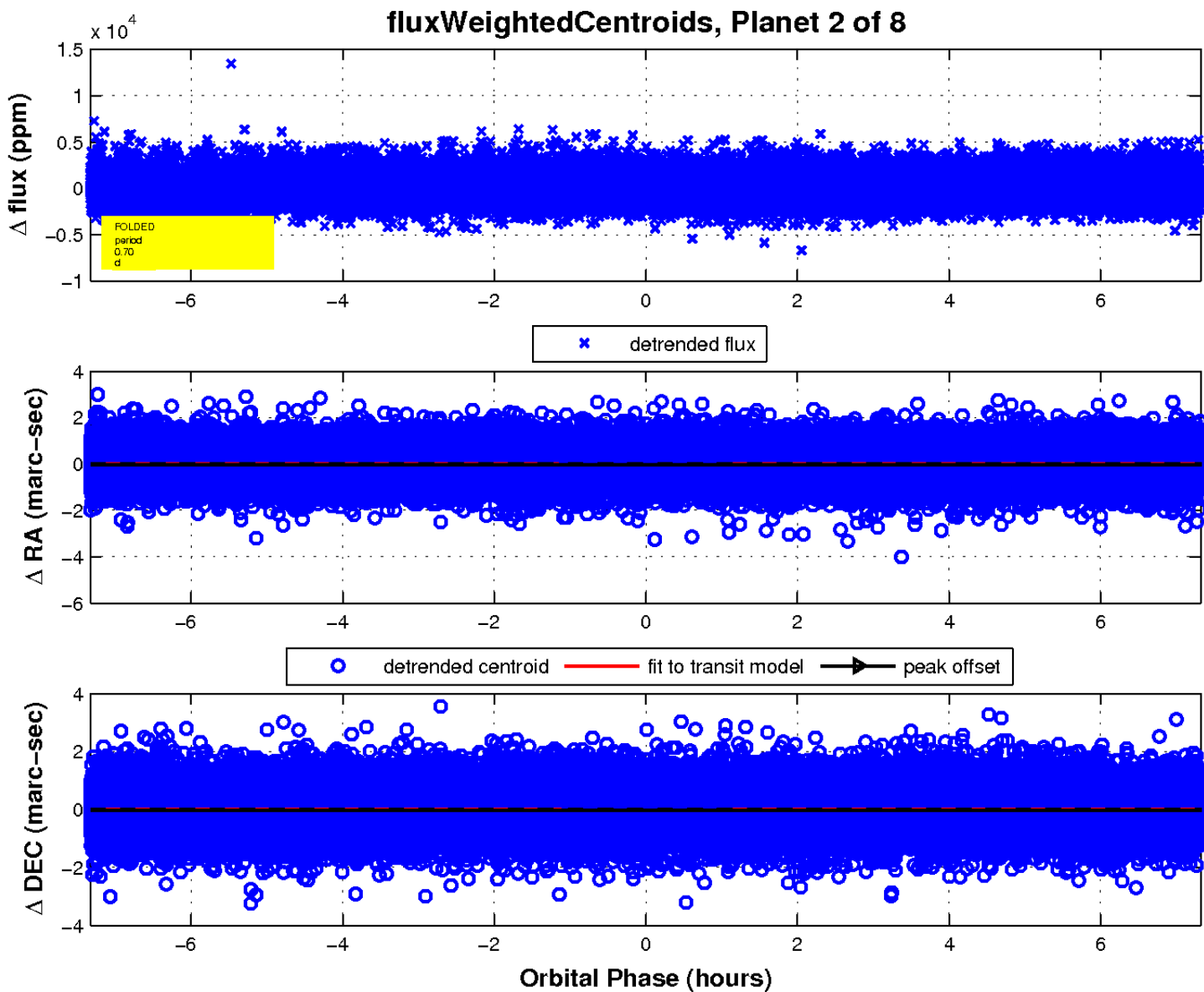
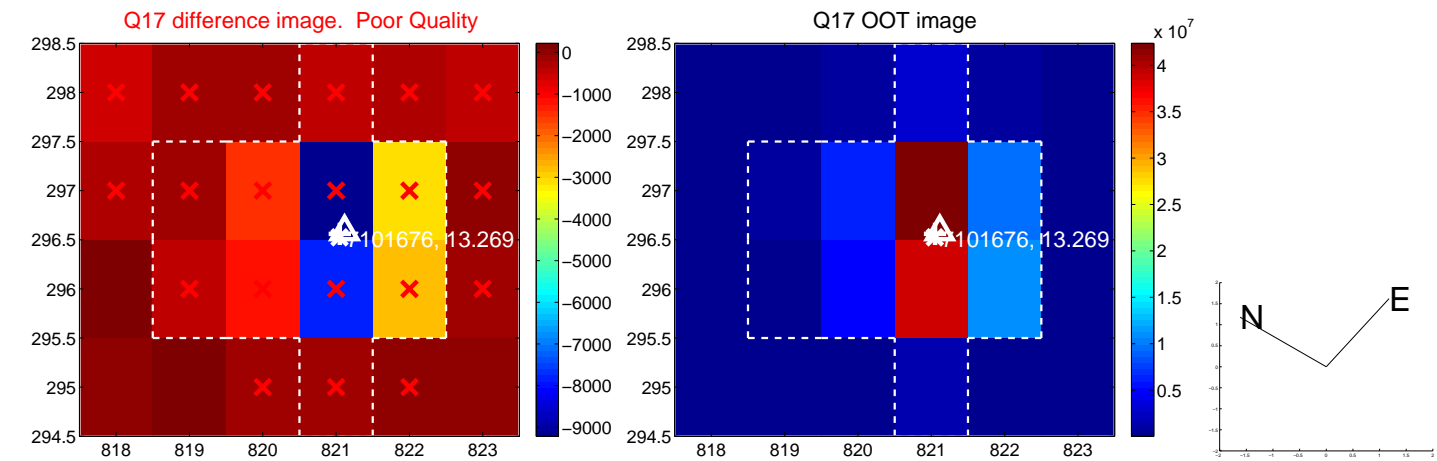
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

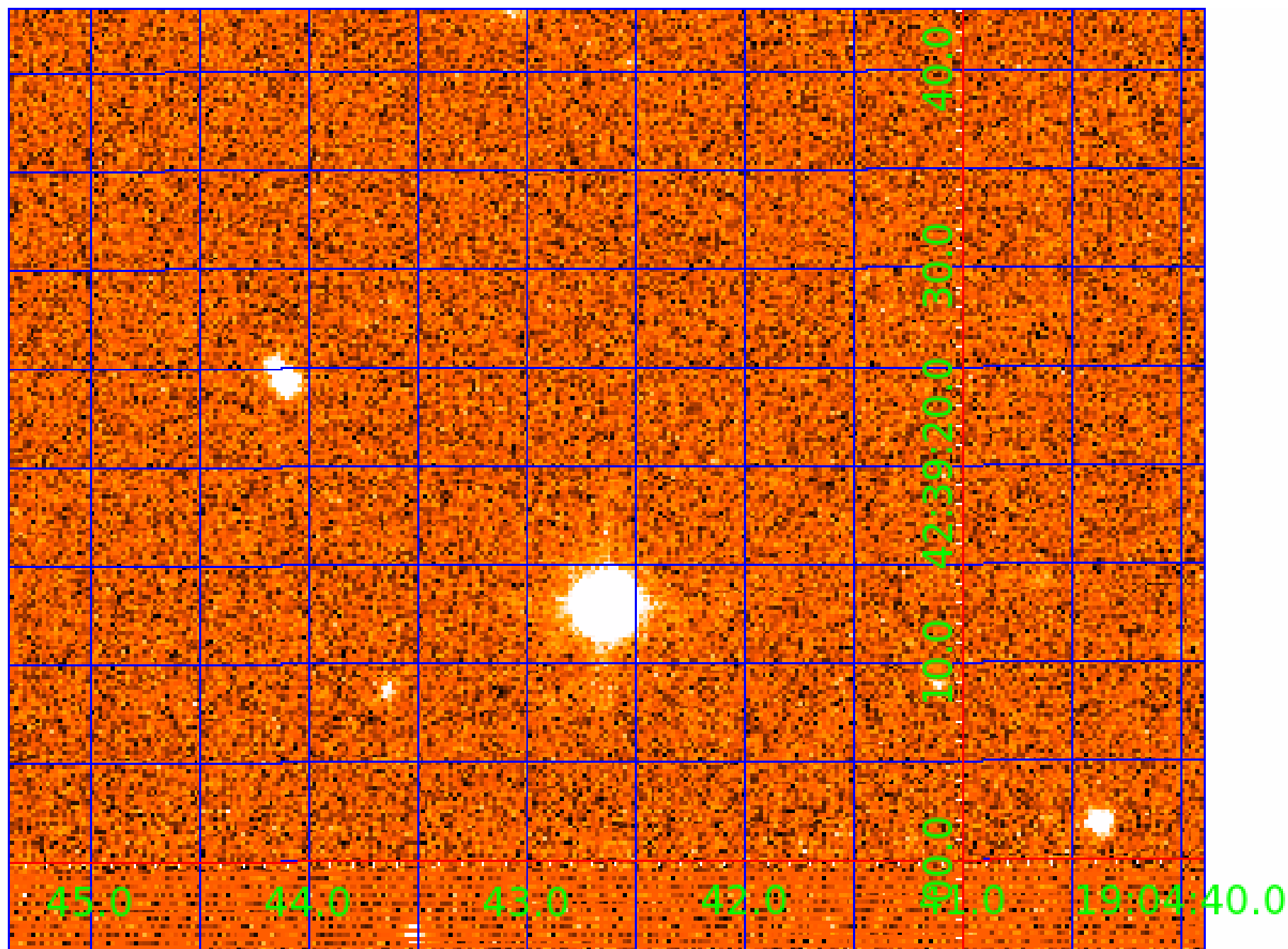


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007101676

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007101676-01	OBS	No	0.695716	131.547106	18.1	2.521	10.4	2.1	1.89	7677	0.94	35131.68
007101676-02	OBS	No	0.695735	131.812000	53.3	2.442	10.9	5.0	1.89	7677	1.61	35130.38
007101676-03	OBS	No	233.138654	198.680511	2592.4	10.039	9.1	10.3	1.89	7677	9.91	15.09
007101676-04	OBS	No	17.371501	139.599201	1537.6	2.515	9.0	7.9	1.89	7677	7.82	481.38
007101676-06	OBS	No	10.404243	137.342248	478.1	1.665	8.5	3.3	1.89	7677	4.53	953.51
007101676-07	OBS	No	27.841844	138.968056	1896.7	3.762	8.7	8.2	1.89	7677	11.80	256.65
007101676-08	OBS	No	55.355036	156.375783	358.6	2.000	8.9	-1.0	1.89	7677	3.63	102.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007101676-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
007101676-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
007101676-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES
007101676-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007101676-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007101676-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
007101676-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

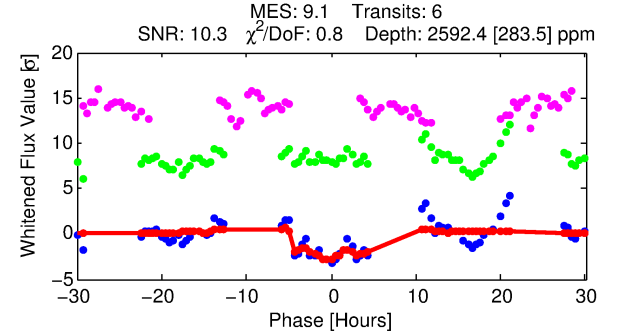
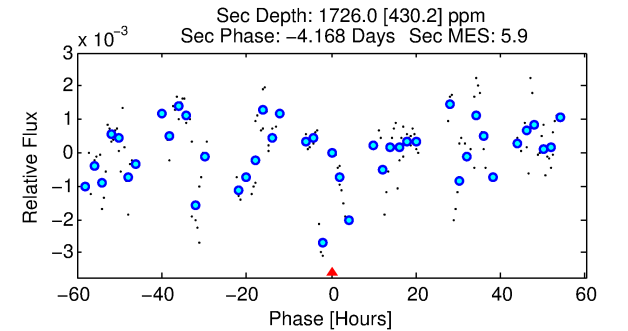
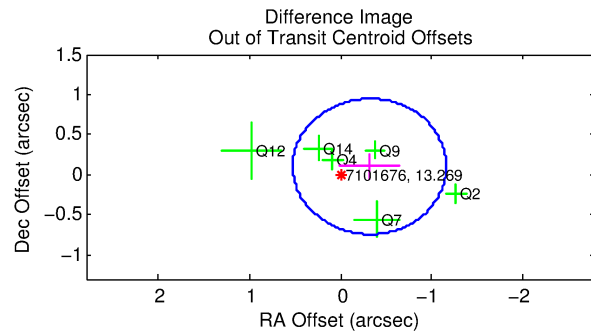
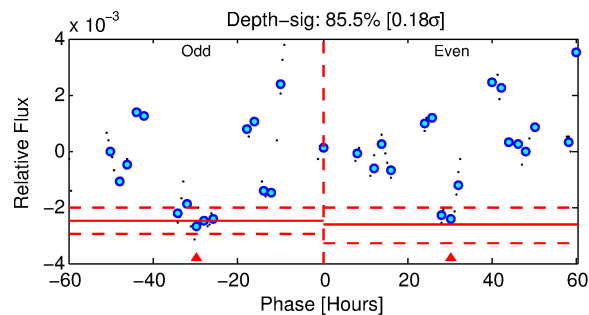
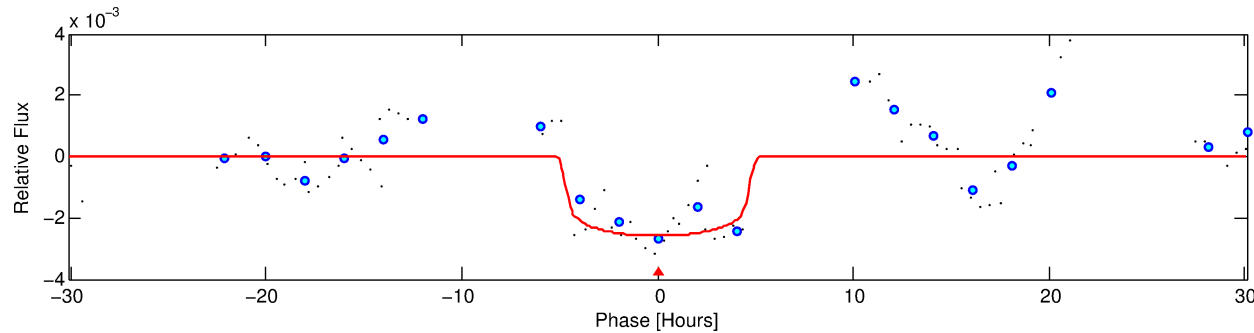
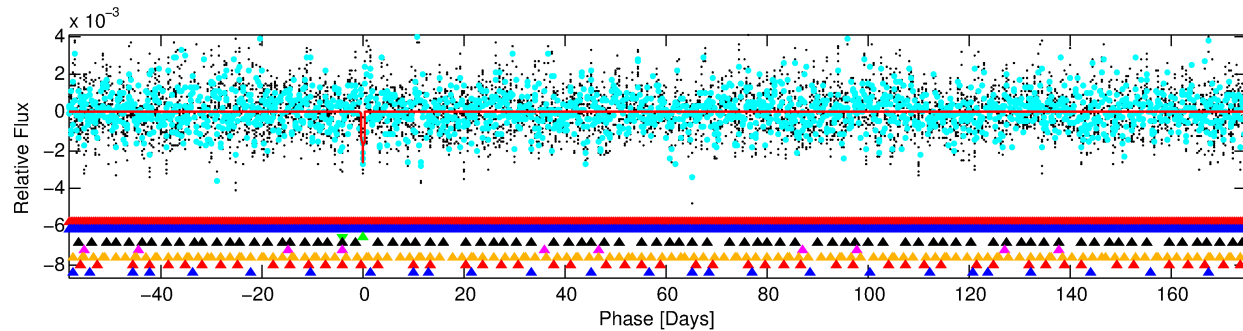
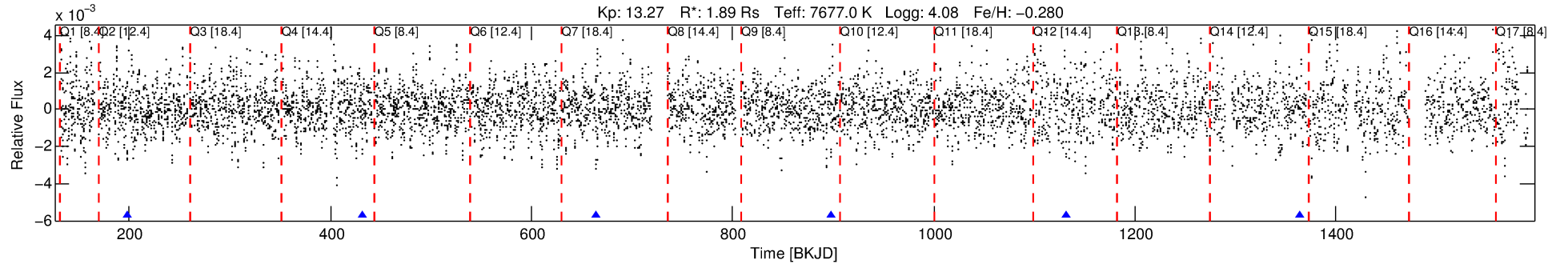
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007101676-03

No Significant Match Found

DV One-Page Summary

KIC: 7101676 Candidate: 3 of 8 Period: 233.139 d



DV Fit Results:

Period = 233.13865 [0.02880] d
Epoch = 198.6805 [0.0712] BKJD
Rp/R* = 0.0480 [0.0442]
a/R* = 168.71 [943.25]
b = 0.44 [9.74]
Seff = 15.09 [5.38]
Teq = 503 [45] K
Rp = 9.91 [9.54] Re
a = 0.8591 [0.1965] AU
Ag = 7139.17 [13458.87] [0.53 σ]
Teffp = 7143 [3329] K [1.99 σ]

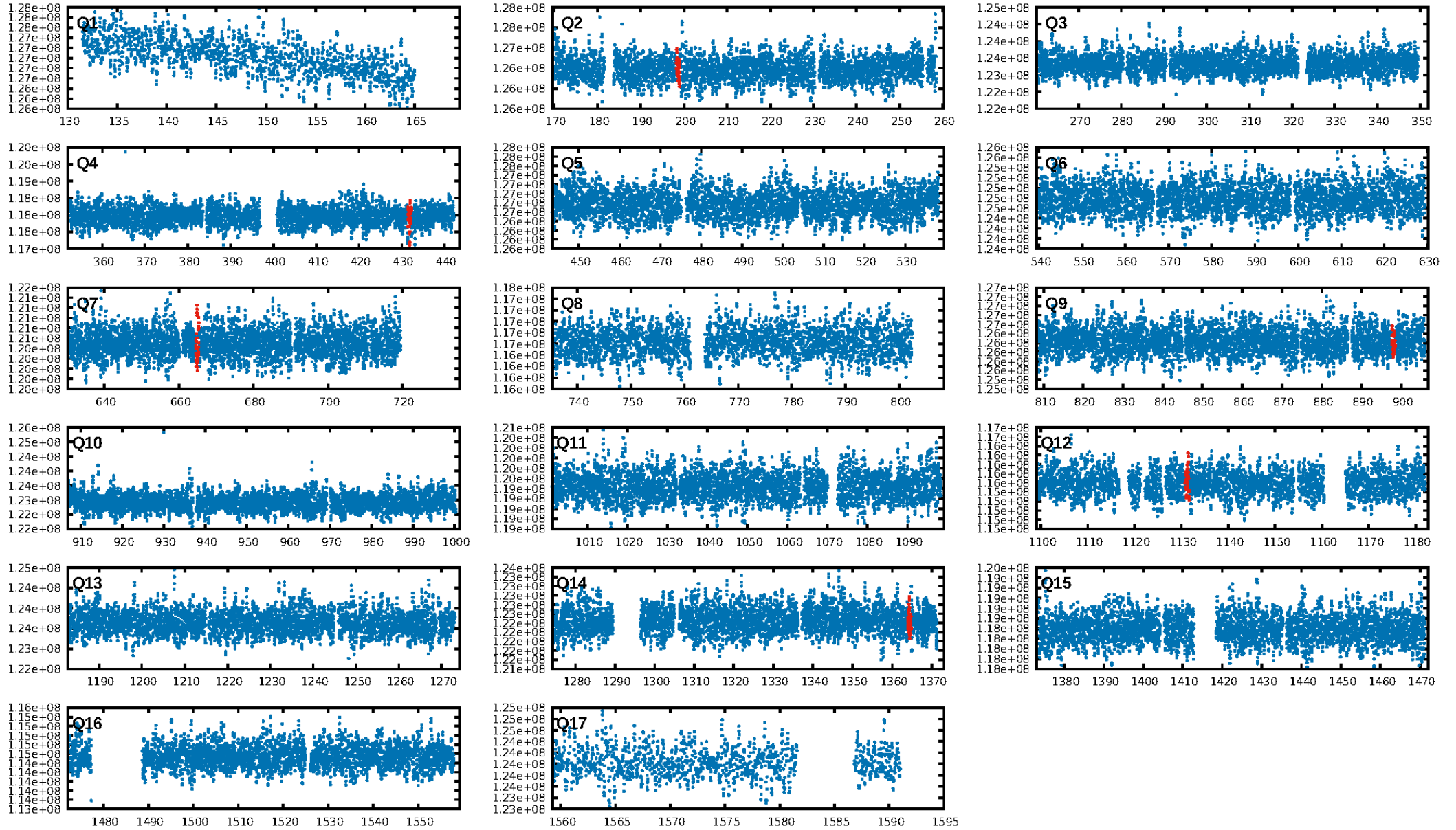
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [130.32 σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 99.5%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 10.68
Centroid-sig: 1.6%
Centroid-so: 0.283 arcsec [3.81 σ]
OotOffset-rm: 0.335 arcsec [1.19 σ]
KicOffset-rm: 0.211 arcsec [0.86 σ]
OotOffset-st: 2/1/2/1 [6]
KicOffset-st: 2/1/2/1 [6]
DiffImageQuality-fgm: 0.67 [4/6]
DiffImageOverlap-fno: 0.00 [0/6]

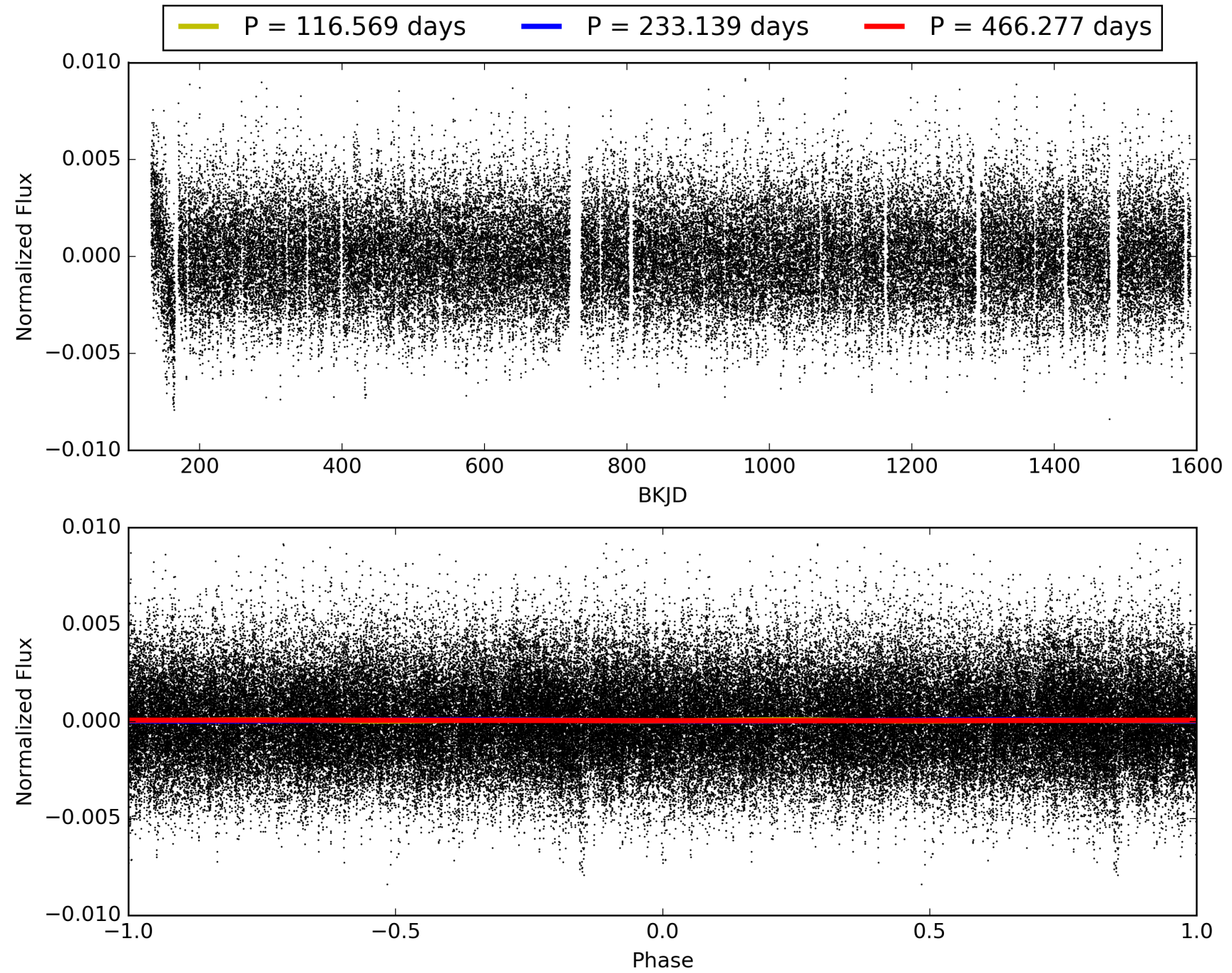
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:59:18 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007101676-03, PDC Light Curves

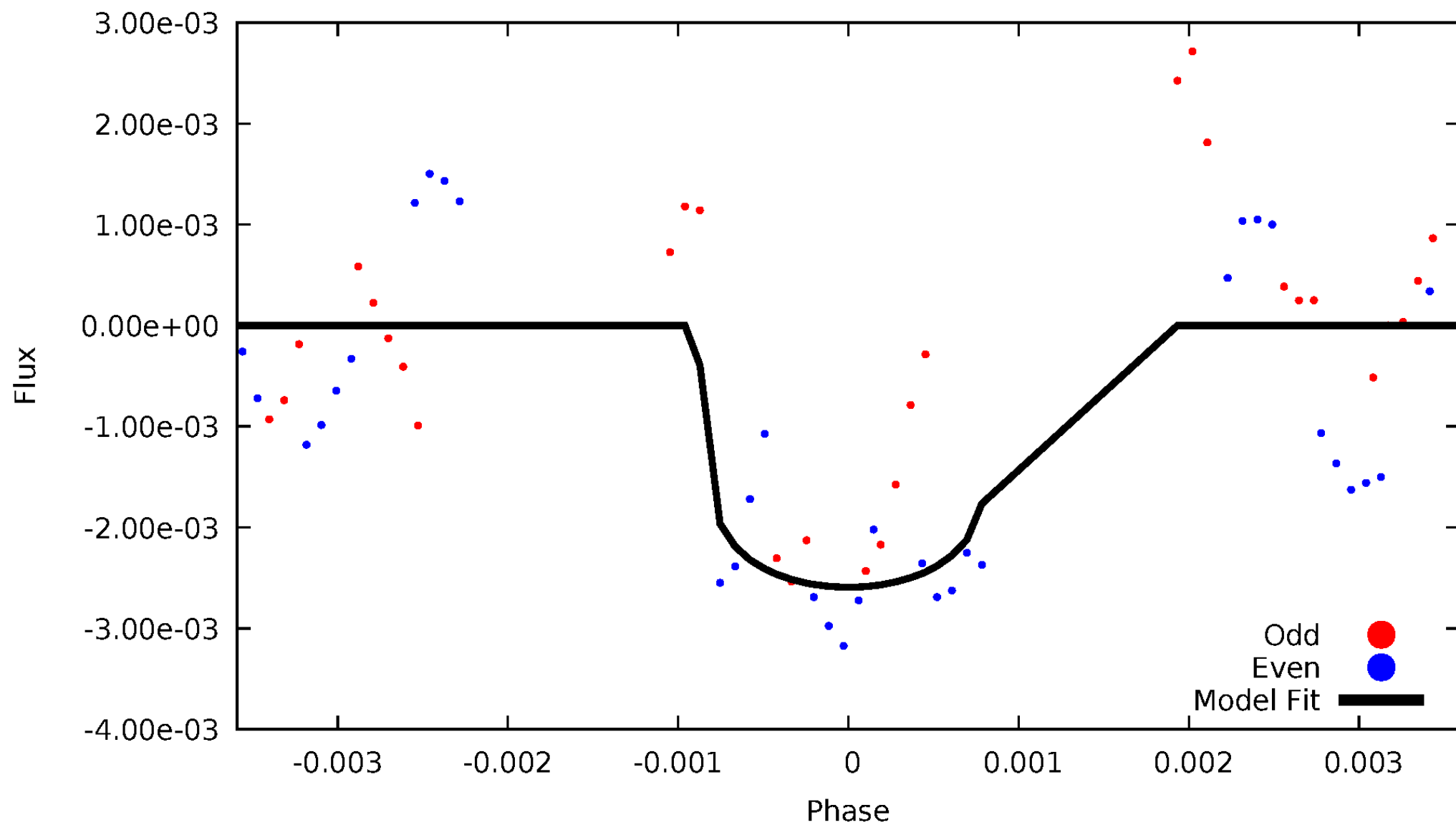


TCE 007101676-03



DV Odd/Even

TCE 007101676-03

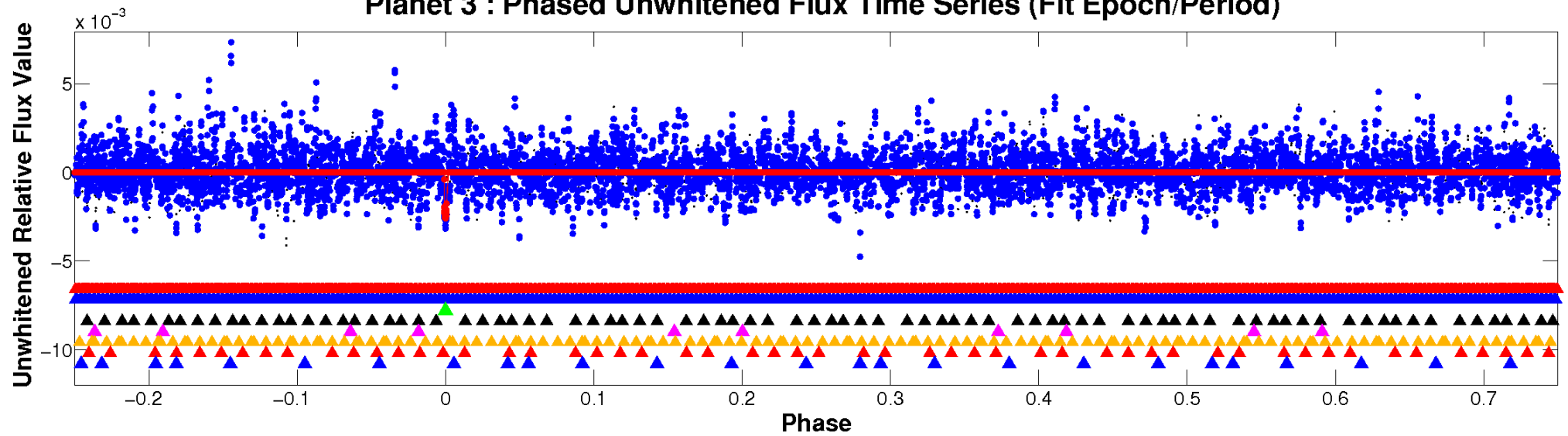


ALT Odd/Even

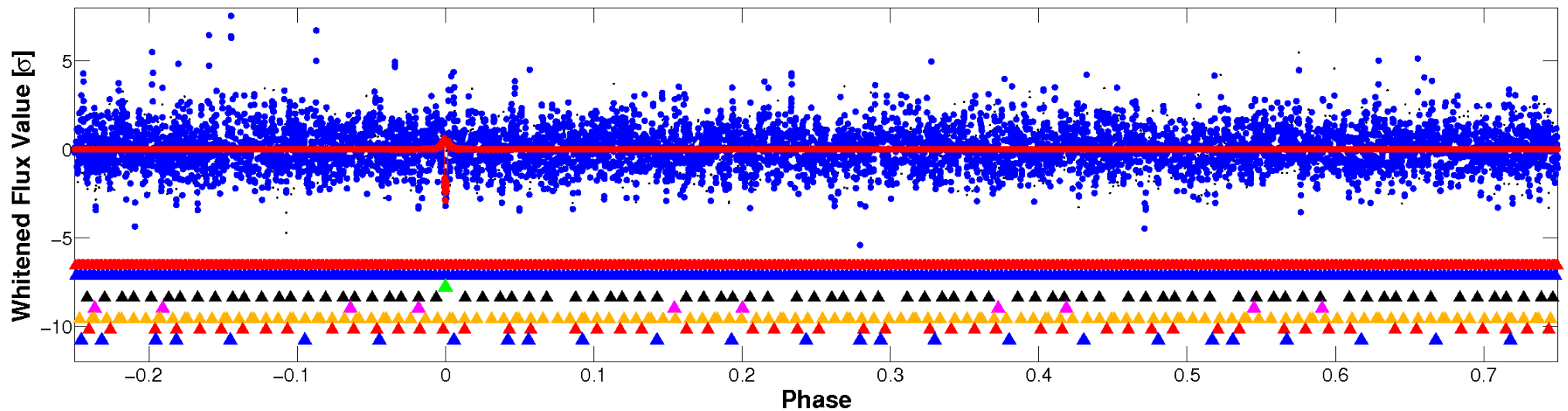
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

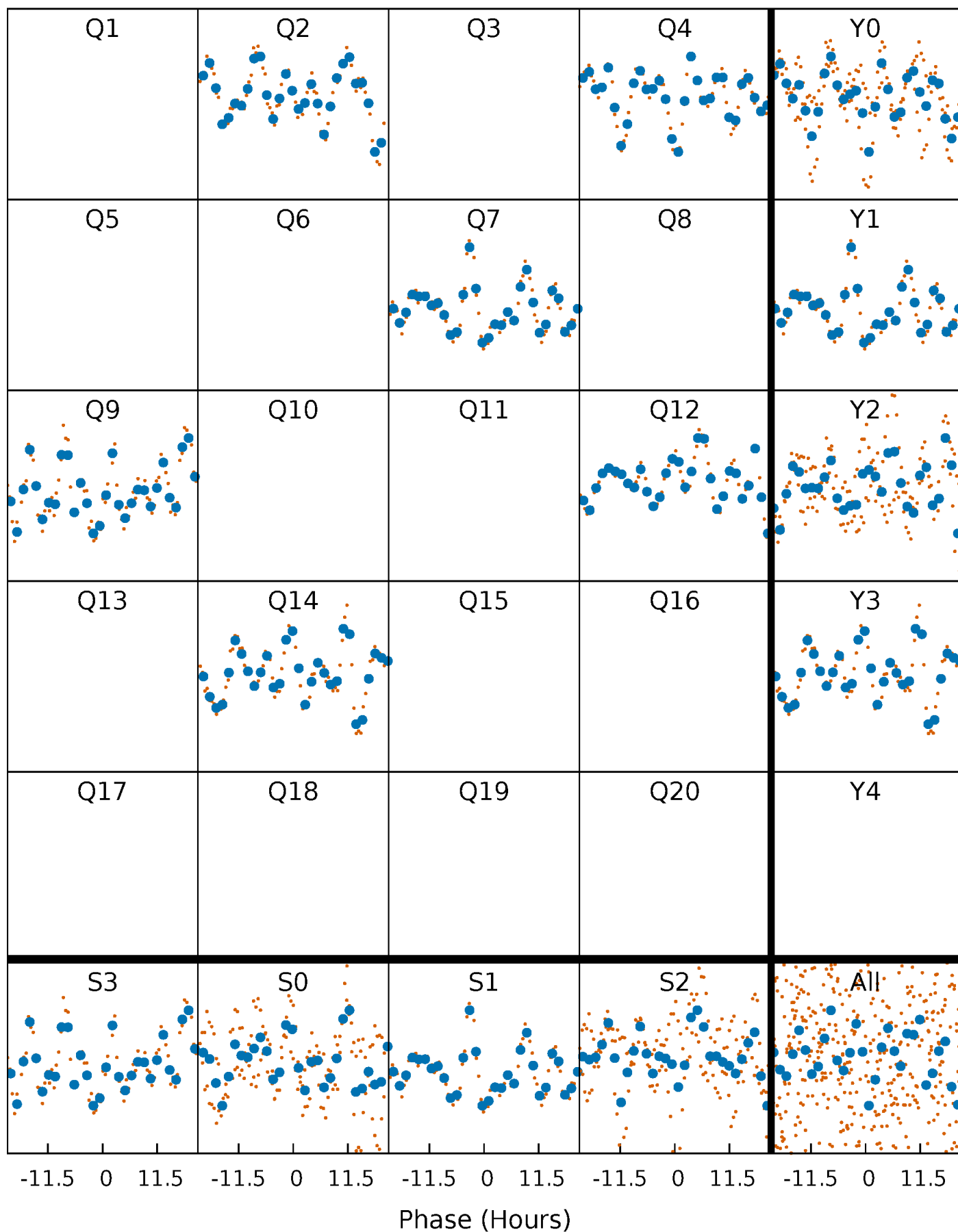


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



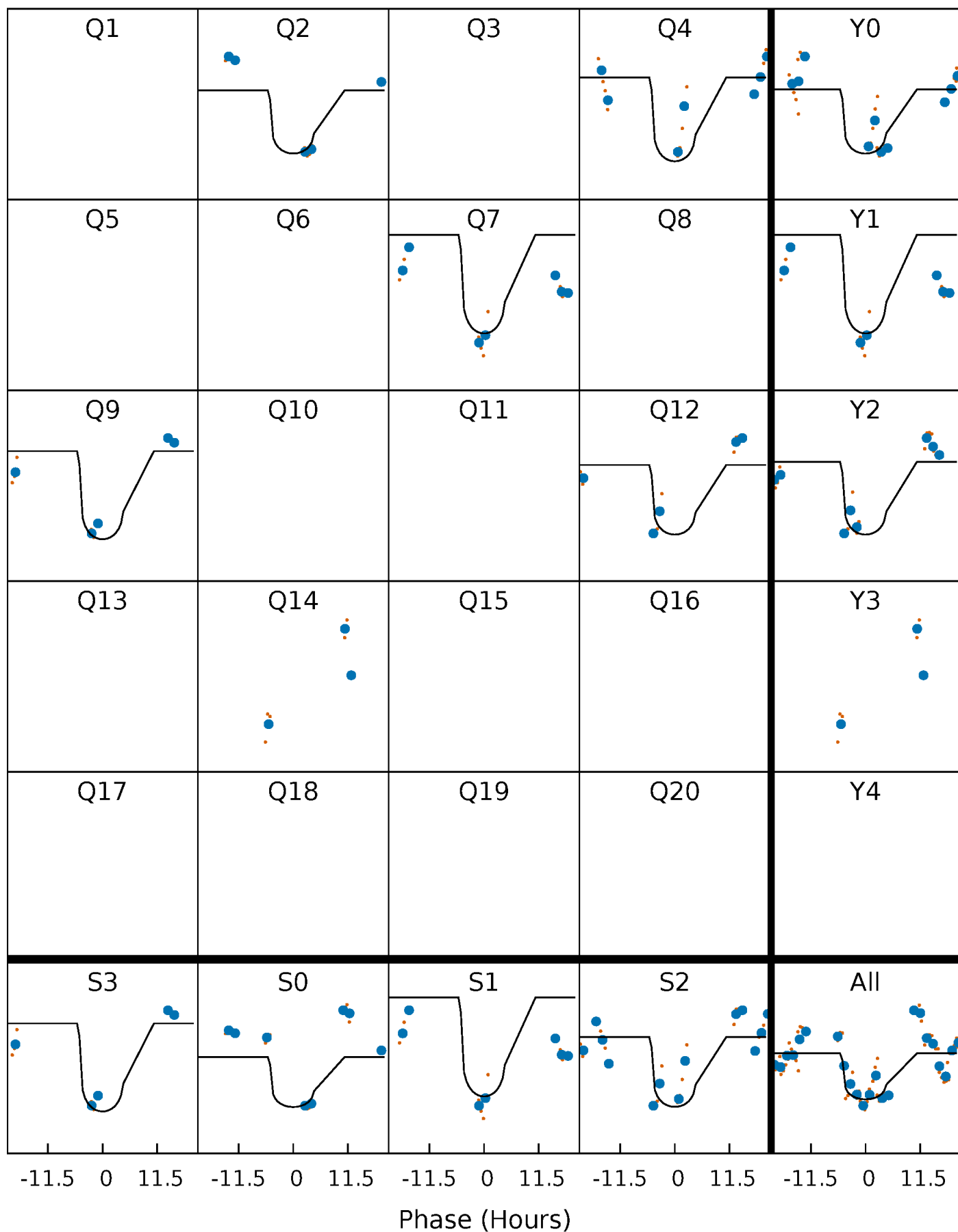
PDC Quarter-Phased Transit Curves

TCE 007101676-03 P=233.138654 Days $T_0=198.680511$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 007101676-03 P=233.138654 Days $T_0=198.680511$ (BKJD)

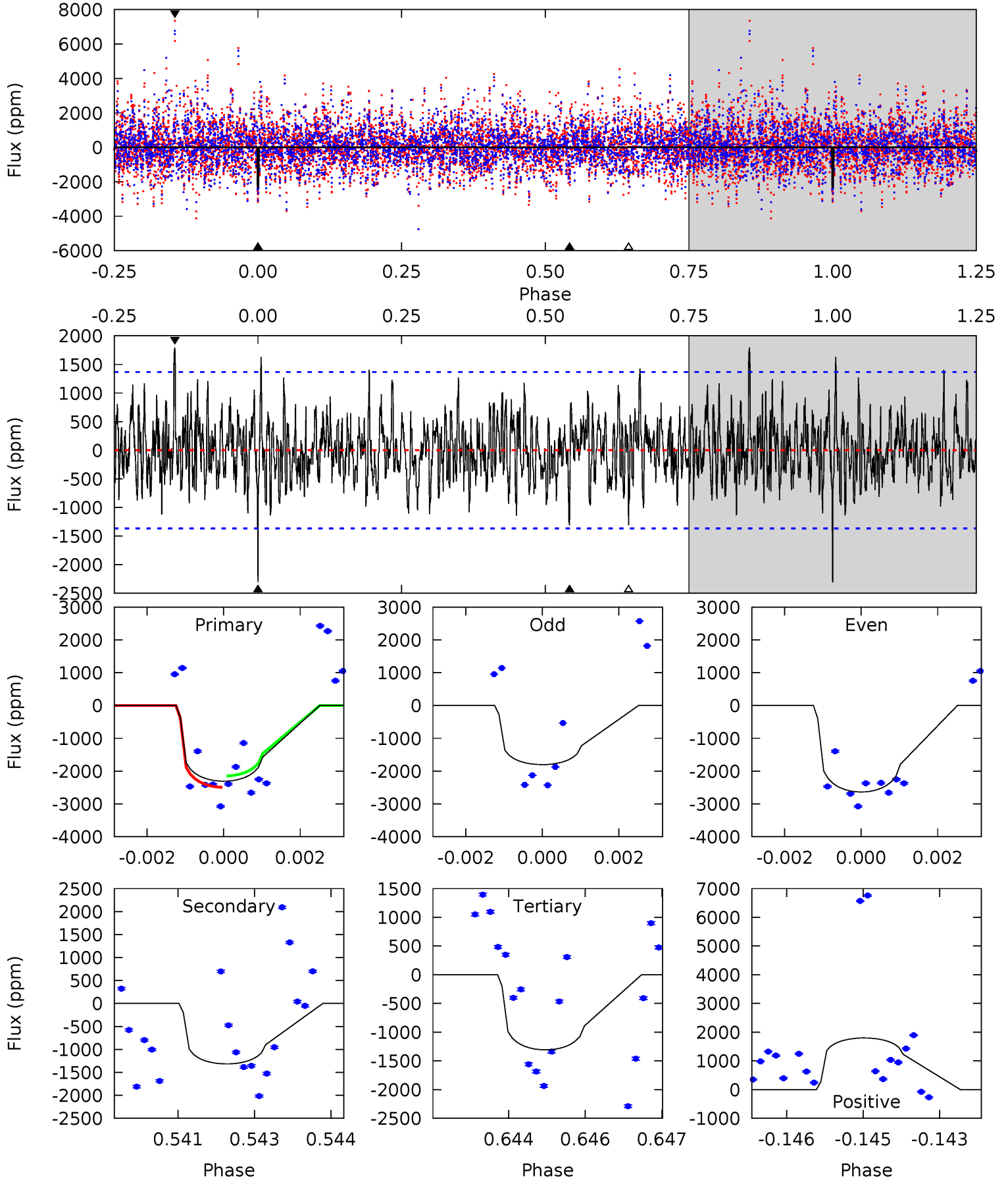


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

007101676-03, P = 233.138654 Days, E = 198.680511 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.07	5.17	5.14	7.07	5.37	3.17	1.79	3.93	2.00	0.03	-1.89	1.63	0.98	0.44	0.67



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 007101676

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7677^{+241}_{-295}	$4.076^{+0.170}_{-0.170}$	$-0.280^{+0.200}_{-0.300}$	$1.892^{+0.533}_{-0.436}$	$1.551^{+0.214}_{-0.235}$	$0.323^{+0.301}_{-0.158}$
	+3%/-4%	+4%/-4%	+71%/-107%	+28%/-23%	+14%/-15%	+93%/-49%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007101676-03 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1316 ± 254	$11.25^{+9.00}_{-7.09}$	700^{+50}_{-47}	6142^{+5440}_{-1460}	4289^{+25280}_{-3057}
Alt.	N/A	N/A	N/A	N/A	N/A

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

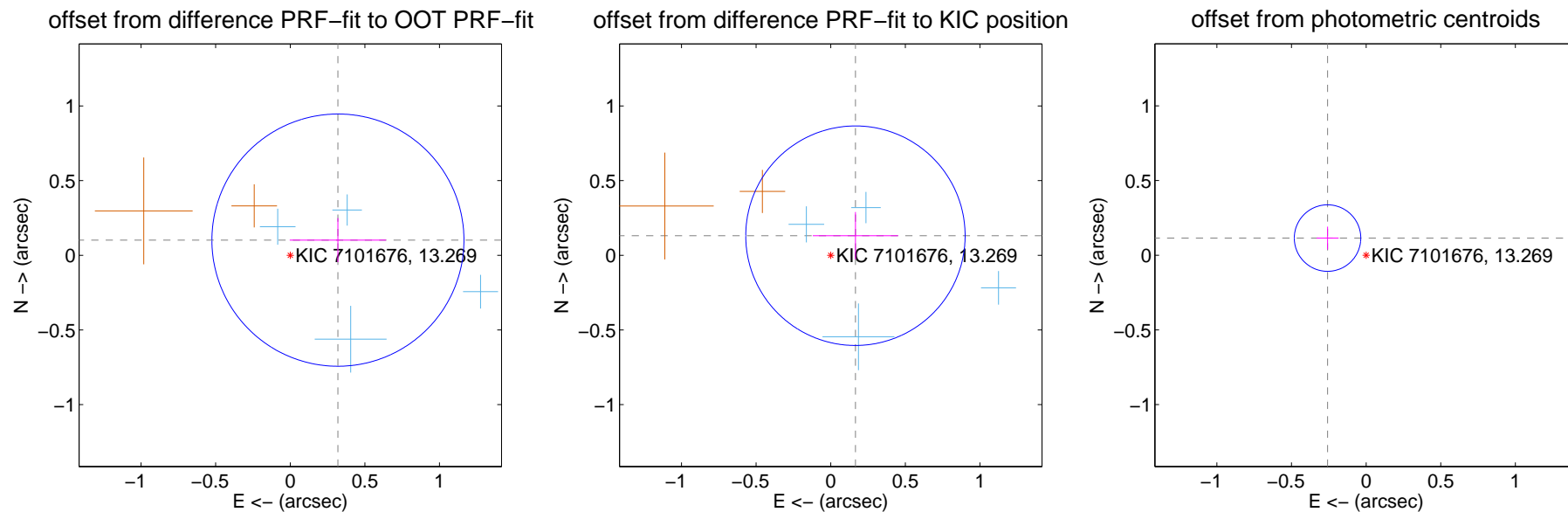
DV Centroid Data

Supplemental centroid analysis for 007101676-03. Kepler magnitude: 13.27. Transit SNR 10.32

There are 4 quarters with good PRF difference image offsets

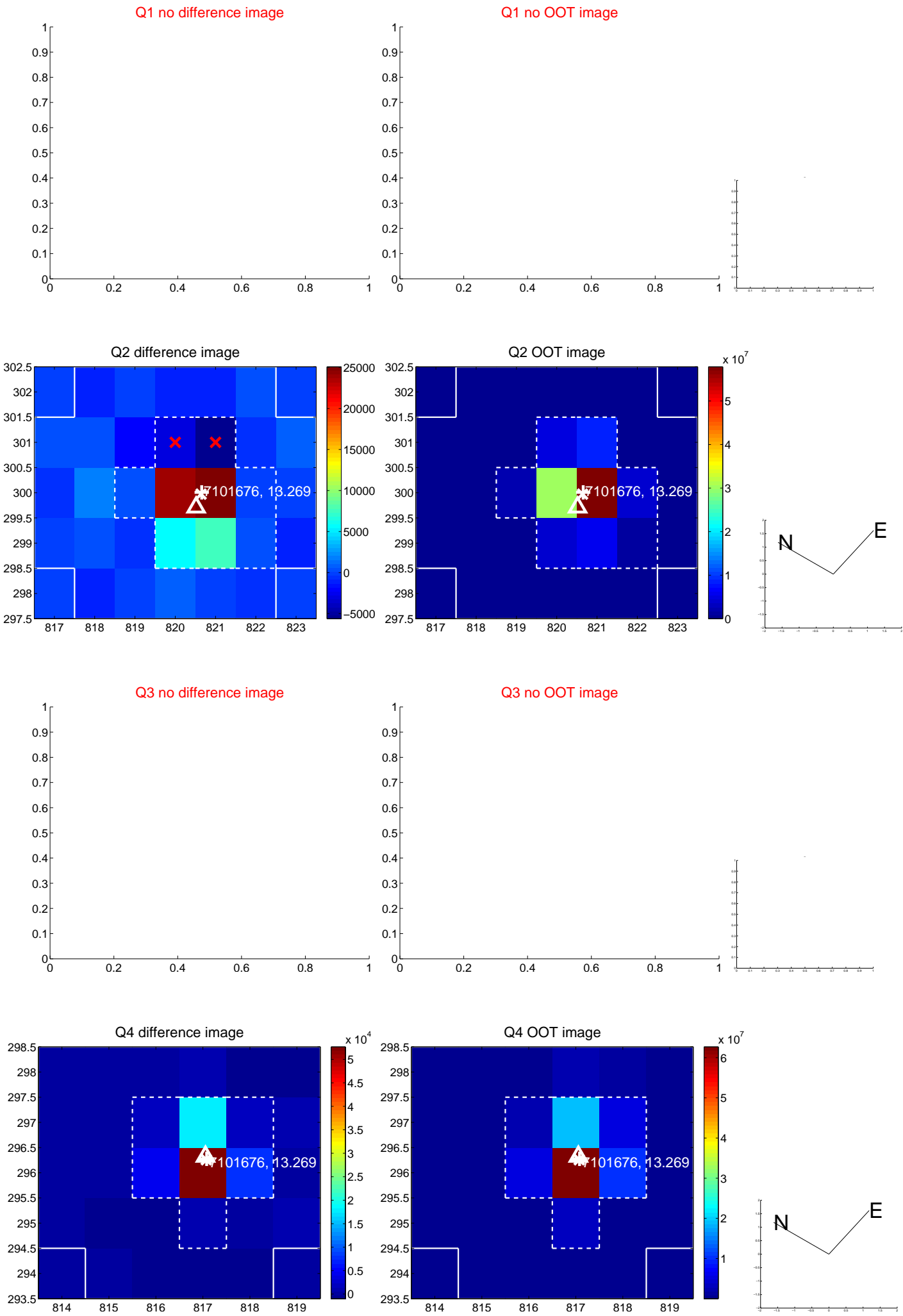
The direct PRF centroid is offset from the target star catalog position by about 0.24 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.335 ± 0.282	1.19	-0.319 ± 0.323	0.102 ± 0.148
PRF-fit source offset from KIC position	0.211 ± 0.245	0.86	-0.166 ± 0.286	0.131 ± 0.159
photometric centroid source offset	0.28 ± 0.07	3.81	0.26 ± 0.07	0.11 ± 0.08



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

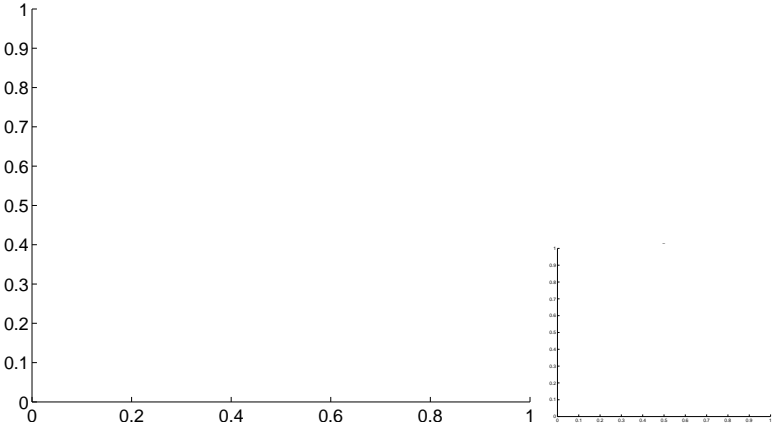


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

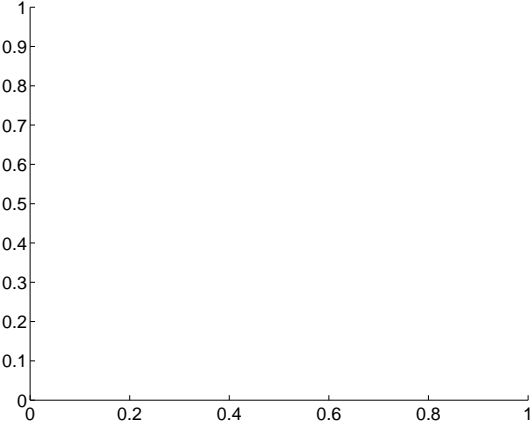
Q5 no difference image



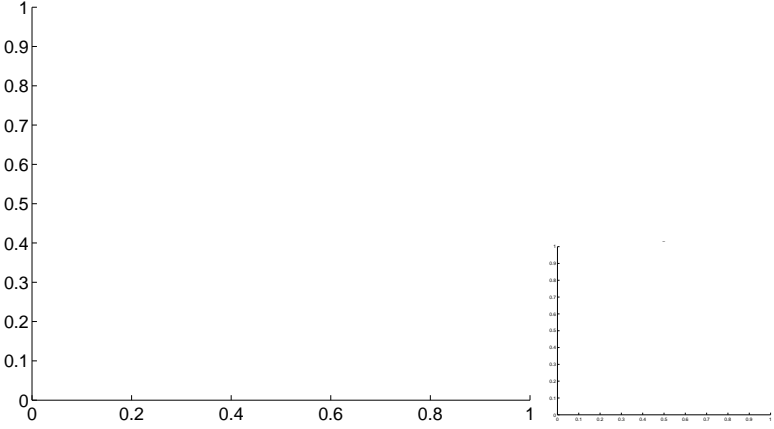
Q5 no OOT image



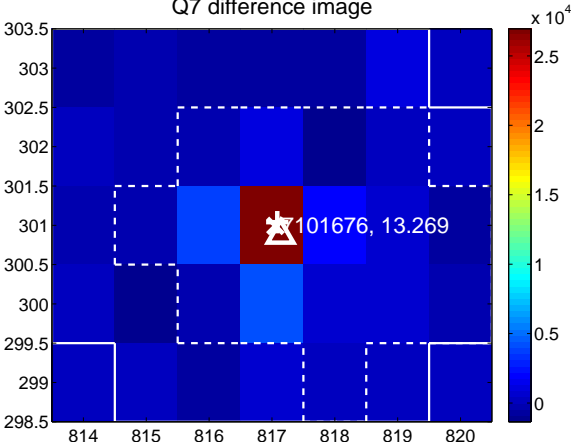
Q6 no difference image



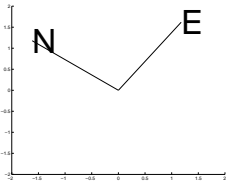
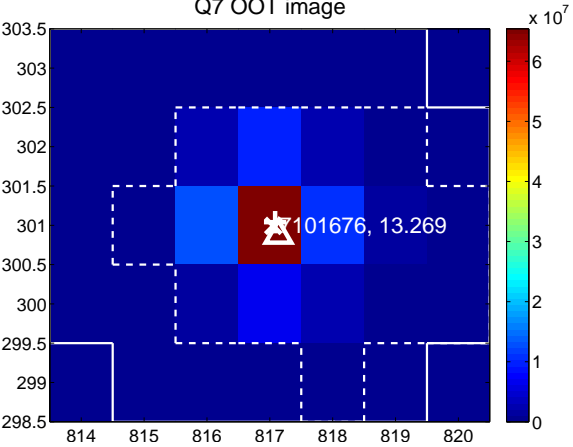
Q6 no OOT image



Q7 difference image



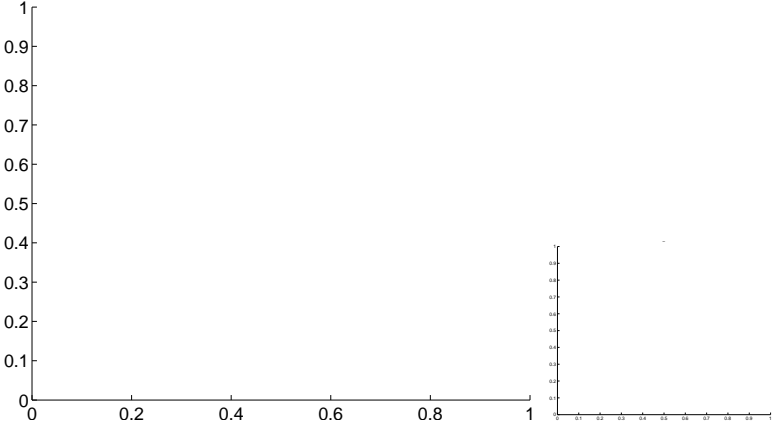
Q7 OOT image



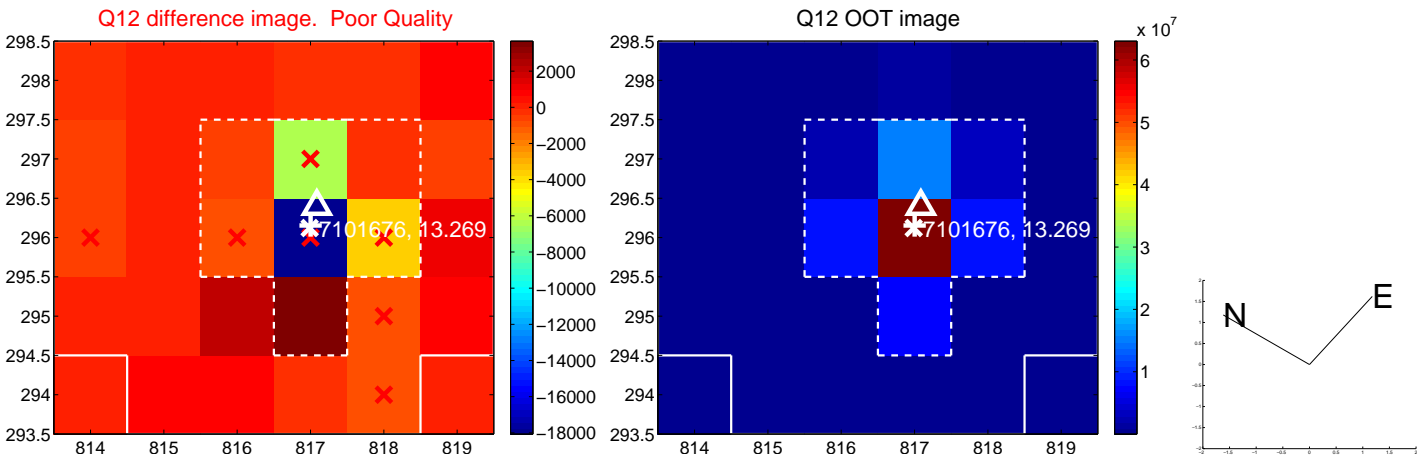
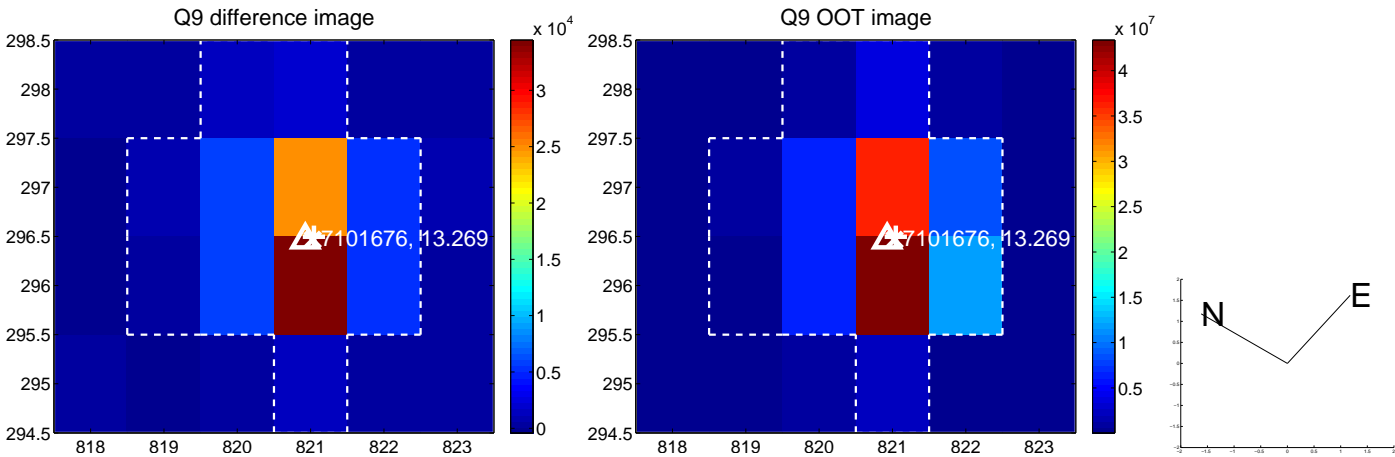
Q8 no difference image



Q8 no OOT image



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

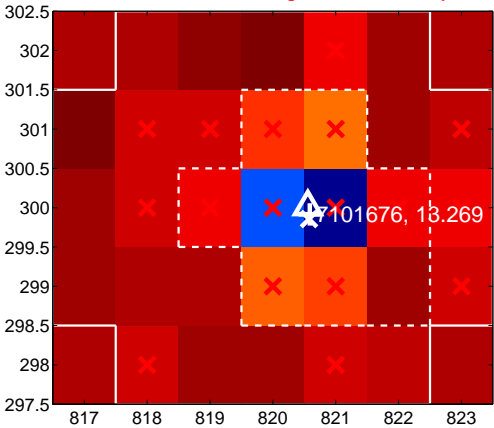
Q13 no difference image



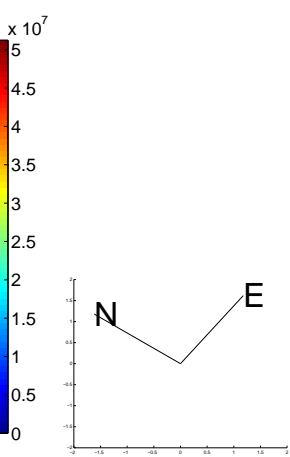
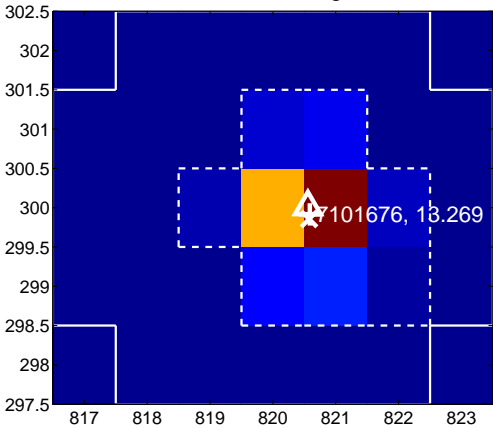
Q13 no OOT image



Q14 difference image. Poor Quality



Q14 OOT image



Q15 no difference image



Q15 no OOT image



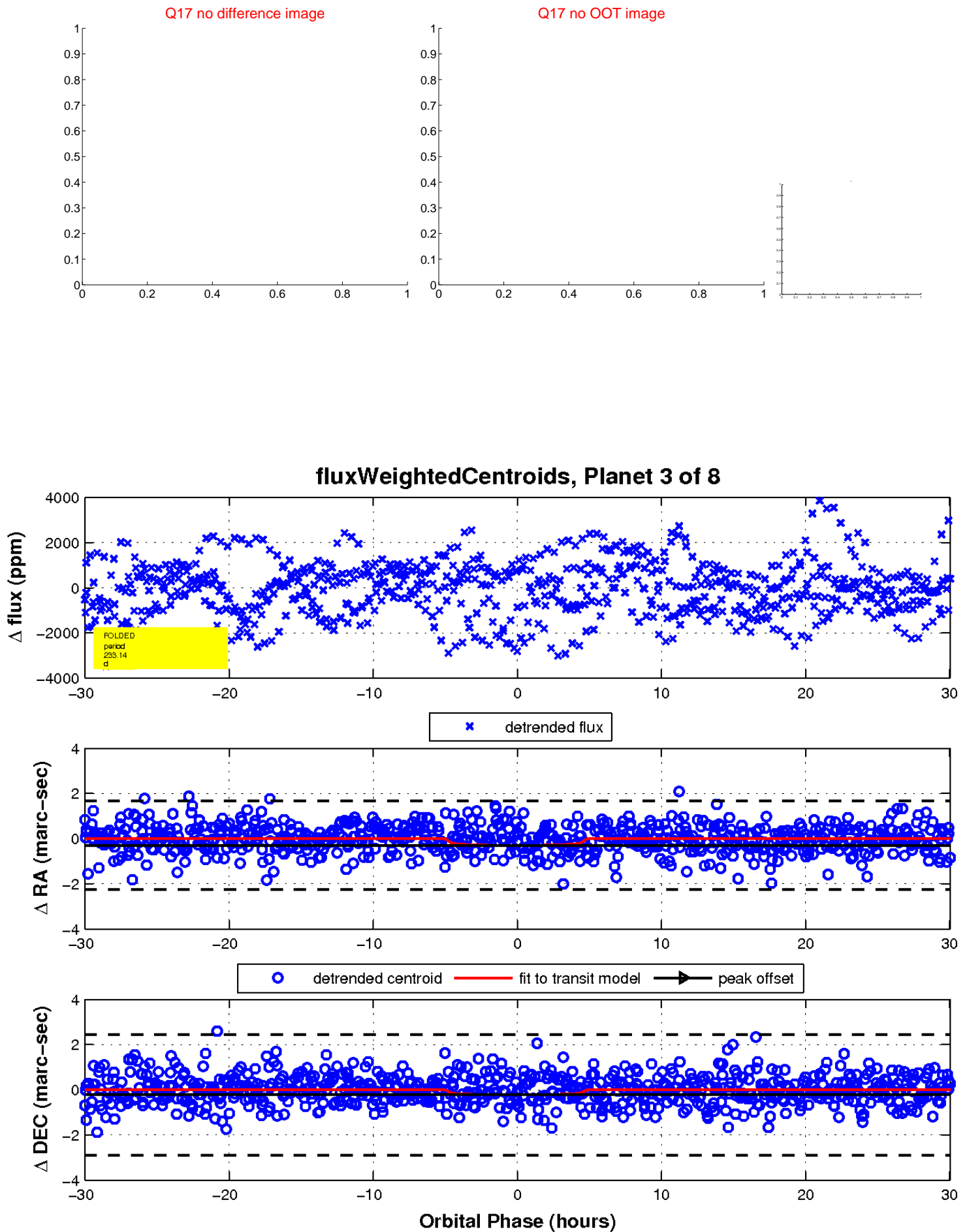
Q16 no difference image



Q16 no OOT image

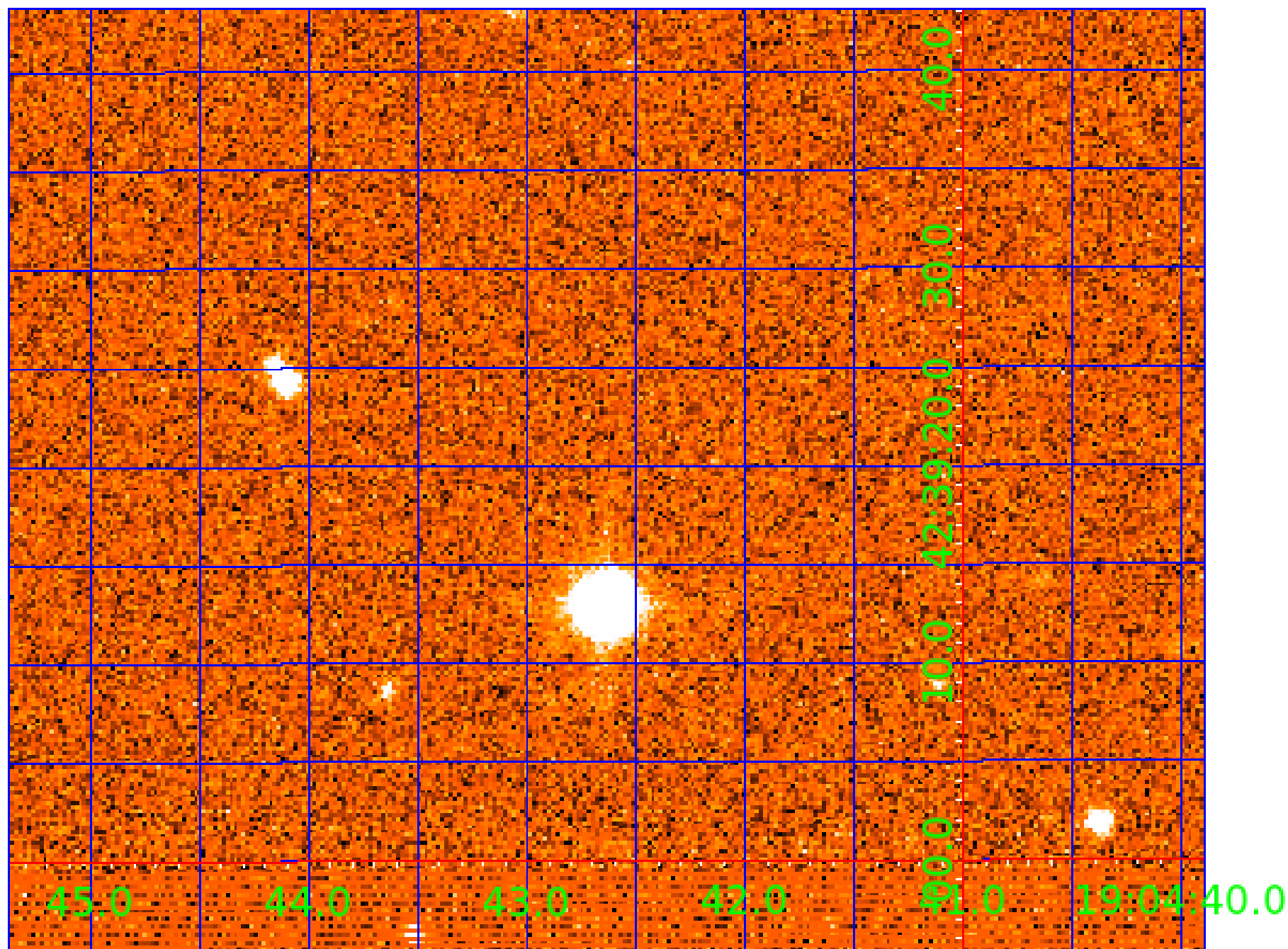


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007101676

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007101676-01	OBS	No	0.695716	131.547106	18.1	2.521	10.4	2.1	1.89	7677	0.94	35131.68
007101676-02	OBS	No	0.695735	131.812000	53.3	2.442	10.9	5.0	1.89	7677	1.61	35130.38
007101676-03	OBS	No	233.138654	198.680511	2592.4	10.039	9.1	10.3	1.89	7677	9.91	15.09
007101676-04	OBS	No	17.371501	139.599201	1537.6	2.515	9.0	7.9	1.89	7677	7.82	481.38
007101676-06	OBS	No	10.404243	137.342248	478.1	1.665	8.5	3.3	1.89	7677	4.53	953.51
007101676-07	OBS	No	27.841844	138.968056	1896.7	3.762	8.7	8.2	1.89	7677	11.80	256.65
007101676-08	OBS	No	55.355036	156.375783	358.6	2.000	8.9	-1.0	1.89	7677	3.63	102.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007101676-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
007101676-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
007101676-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES
007101676-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007101676-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007101676-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
007101676-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

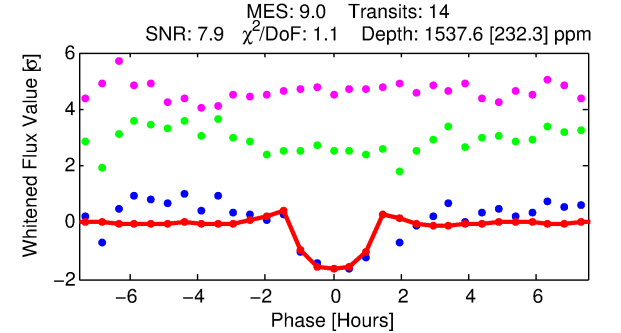
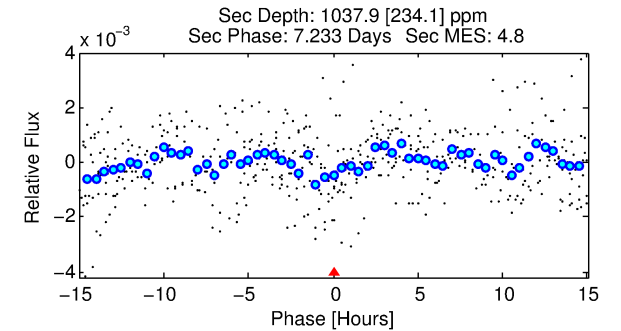
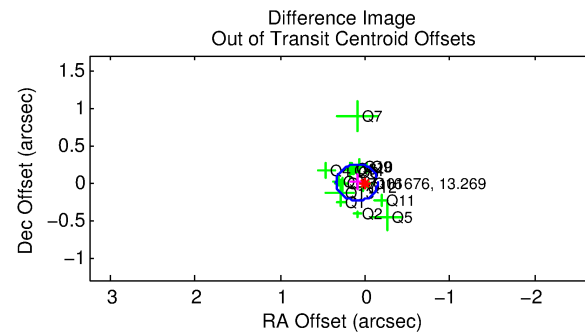
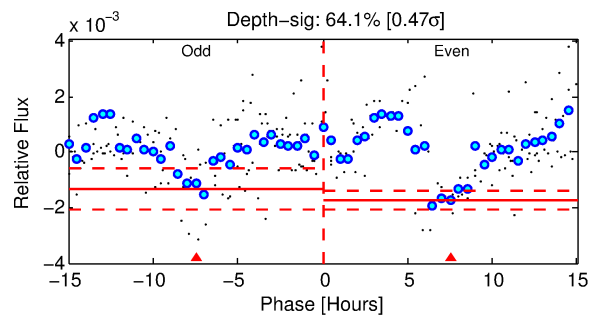
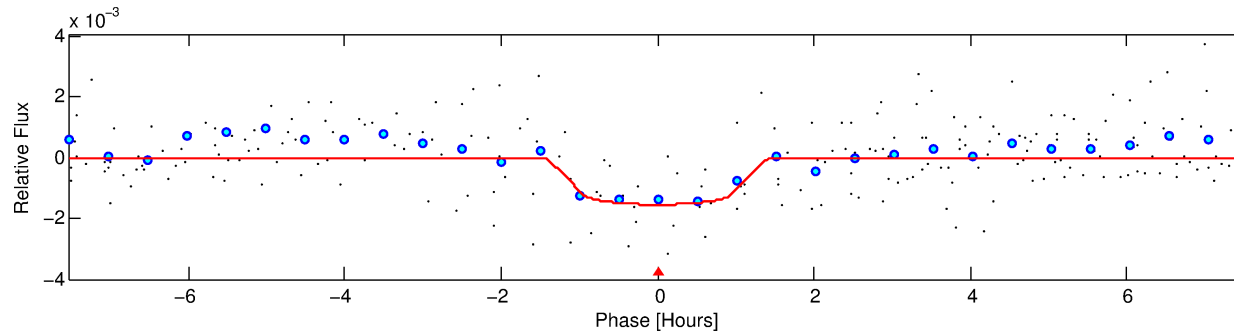
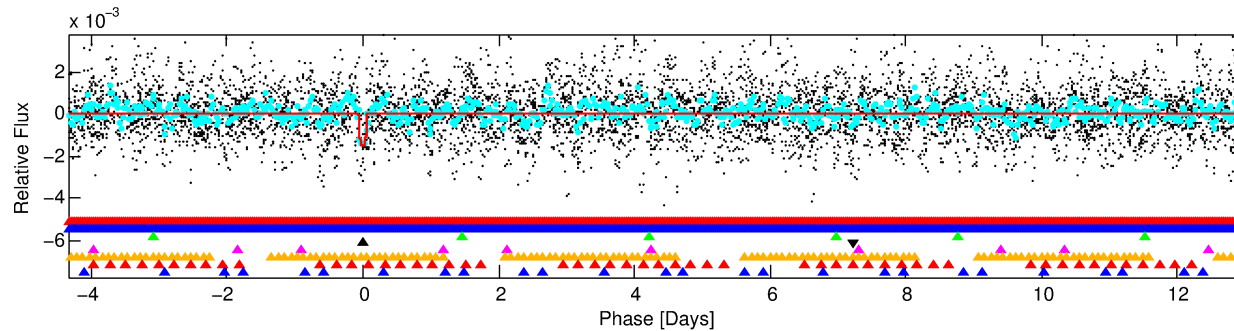
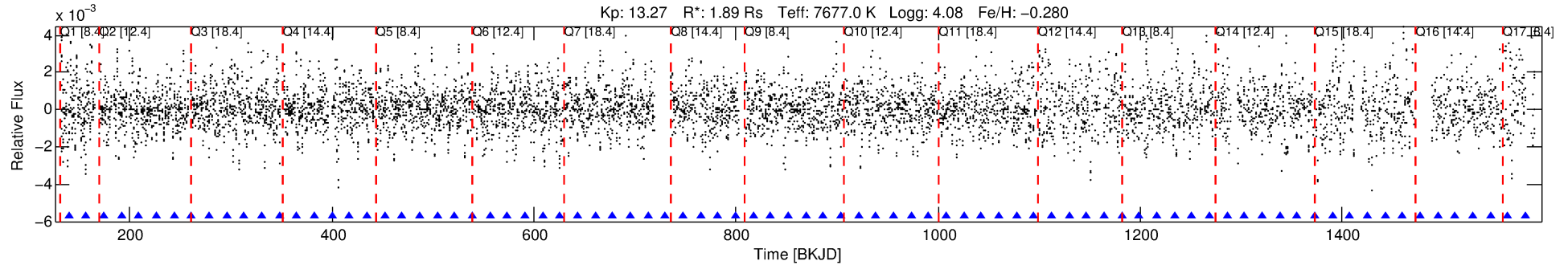
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007101676-04

No Significant Match Found

DV One-Page Summary

KIC: 7101676 Candidate: 4 of 8 Period: 17.372 d



DV Fit Results:

Period = 17.37150 [0.00018] d
Epoch = 139.5992 [0.0072] BKJD
Rp/R* = 0.0379 [0.1000]
a/R* = 43.87 [652.60]
b = 0.62 [14.85]
Seff = 481.38 [171.55]
Teq = 1194 [106] K
Rp = 7.82 [20.76] Re
a = 0.1521 [0.0348] AU
Ag = 215.84 [1142.23] [0.19 σ]
Teffp = 7078 [9351] K [0.63 σ]

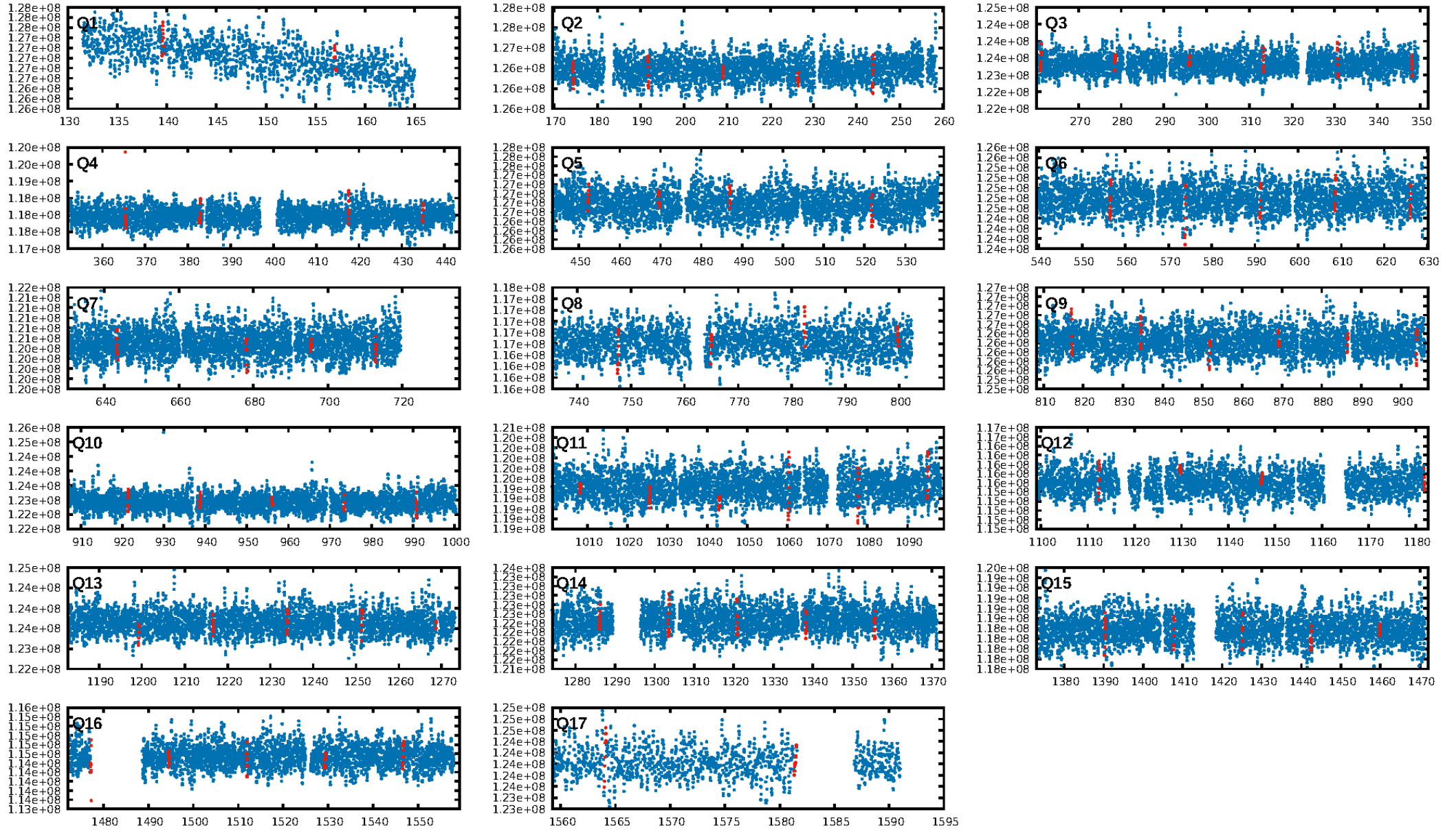
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [55.44 σ]
LongPeriod-sig: 100.0% [55.54 σ]
ModelChiSquare2-sig: 24.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [13/13]
GhostDiagnostic-chr: -0.8854
Centroid-sig: 93.5%
Centroid-so: 0.158 arcsec [2.44 σ]
OotOffset-rm: 0.094 arcsec [1.16 σ]
OotOffset-st: 4/3/4/5 [16]
KicOffset-rm: 0.254 arcsec [3.14 σ]
KicOffset-st: 4/3/4/5 [16]
DiffImageQuality-fgm: 0.62 [10/16]
DiffImageOverlap-fno: 0.00 [0/17]

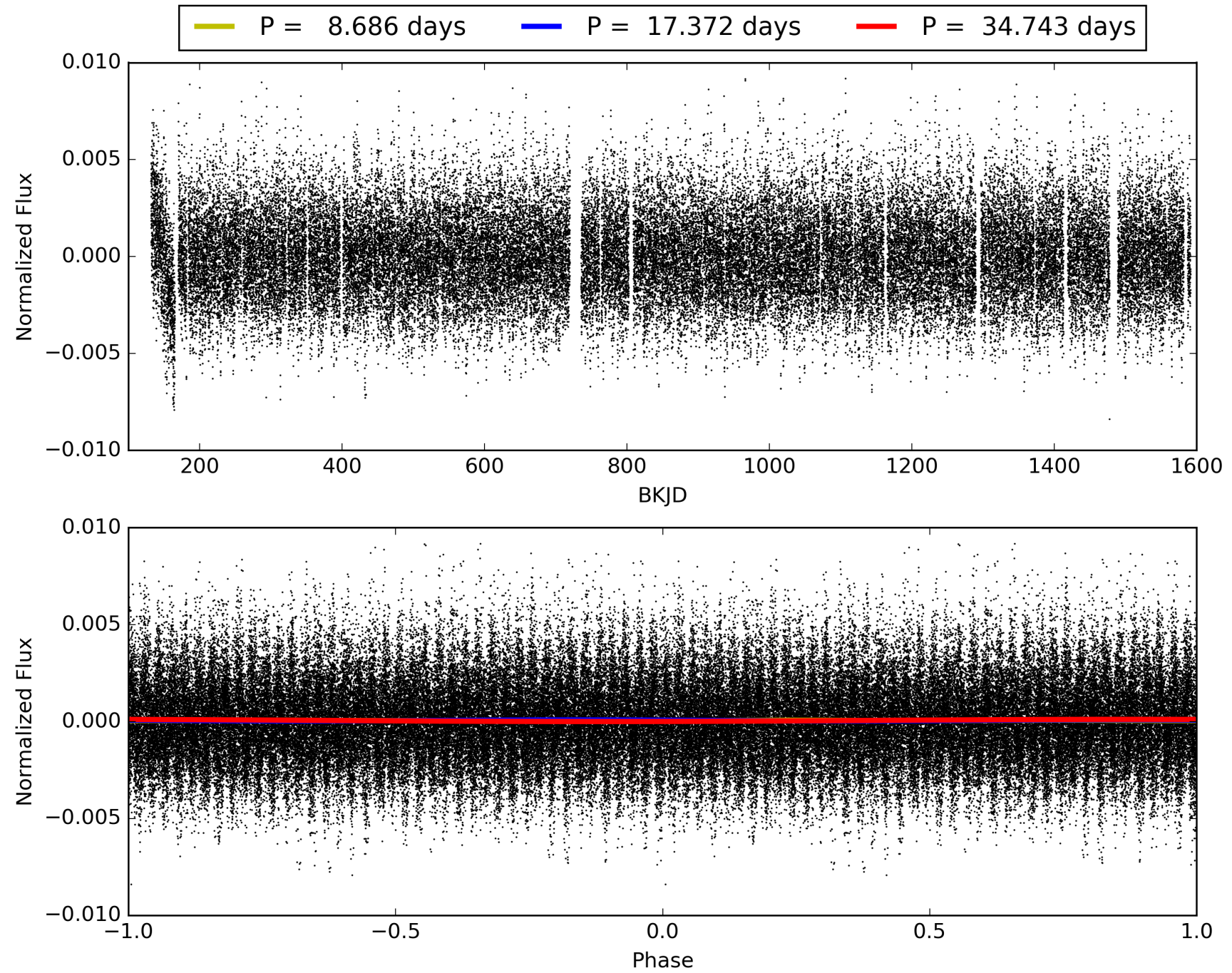
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:59:21 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007101676-04, PDC Light Curves

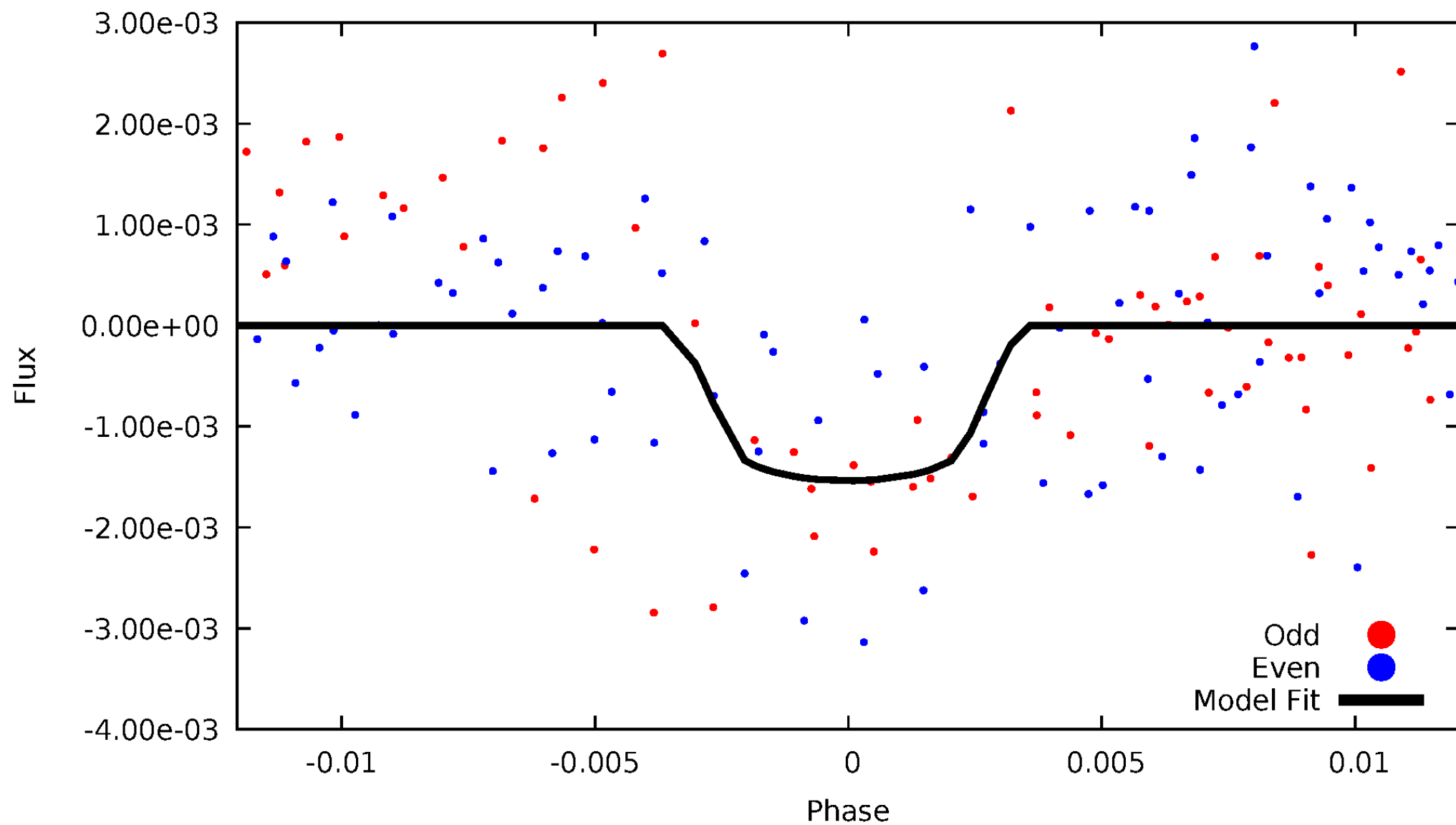


TCE 007101676-04



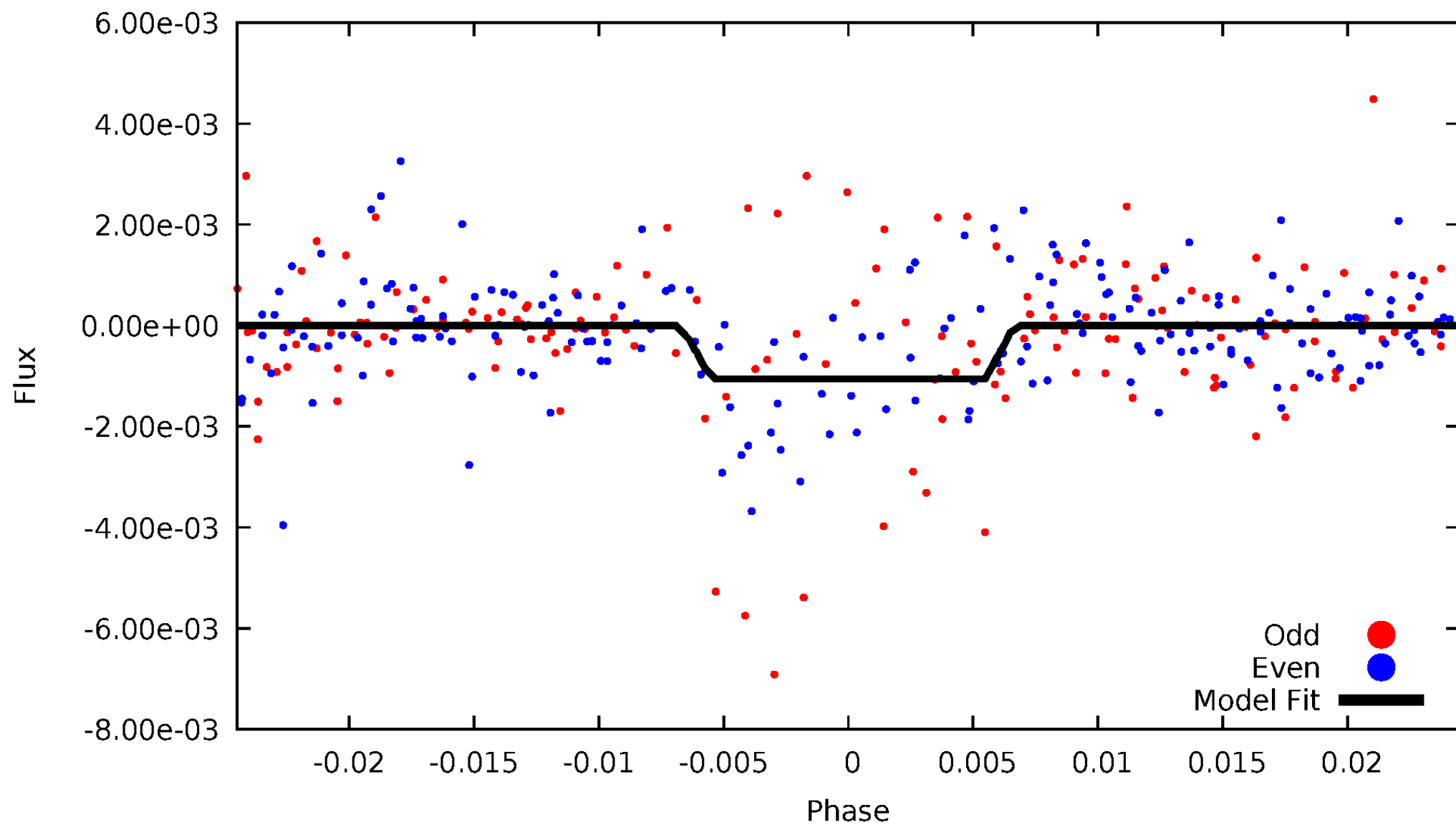
DV Odd/Even

TCE 007101676-04



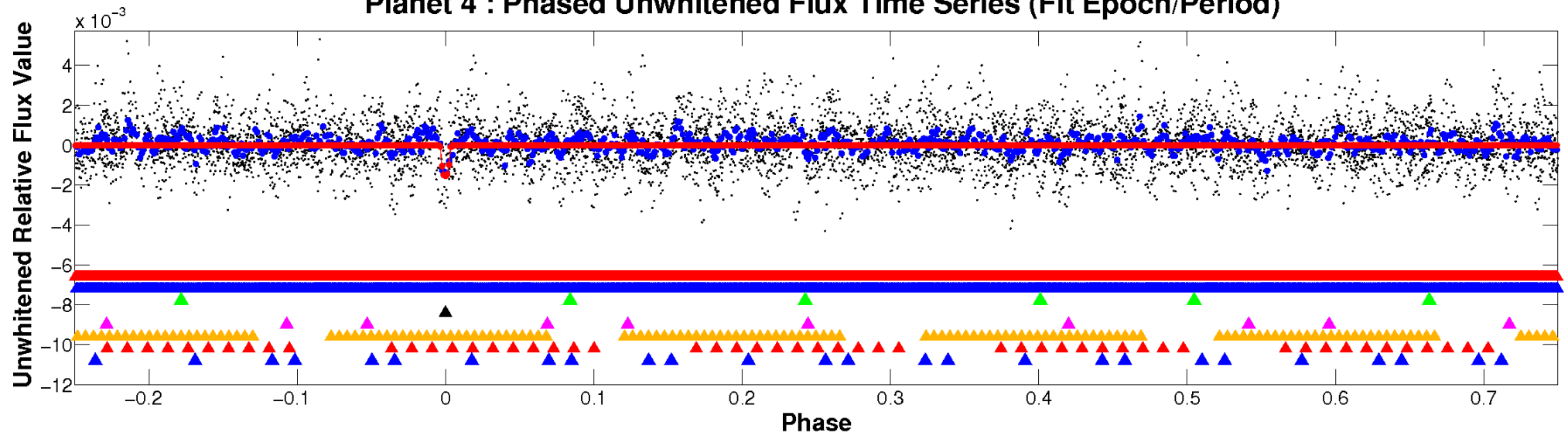
ALT Odd/Even

TCE 007101676-04

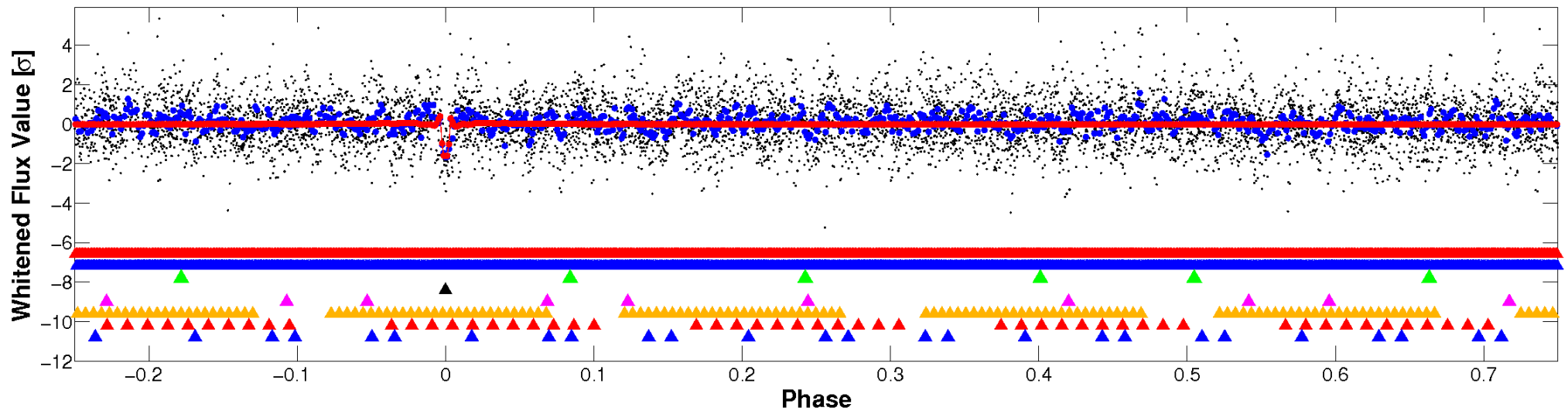


Non-Whitened Vs. Whitened Light Curve

Planet 4 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

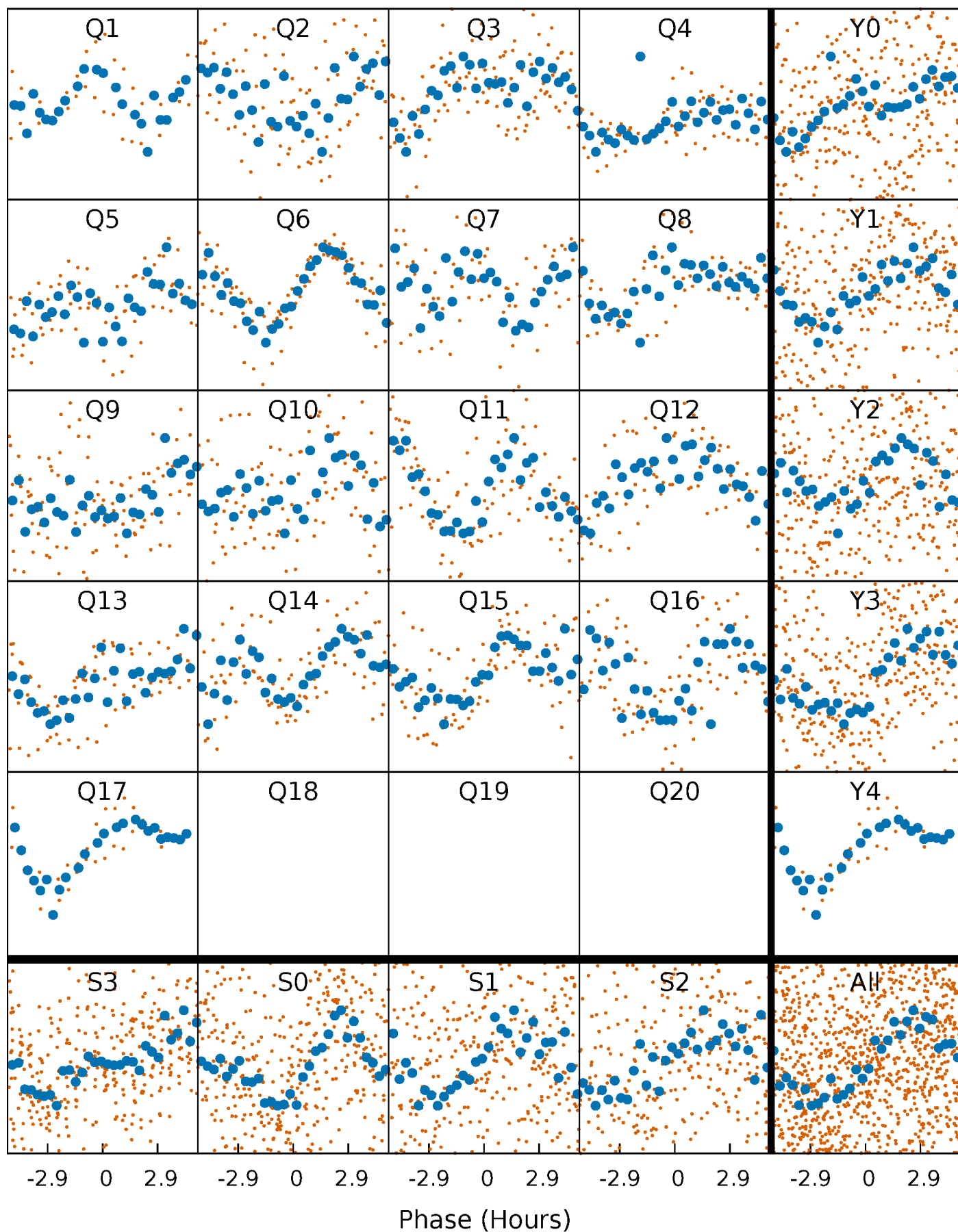


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



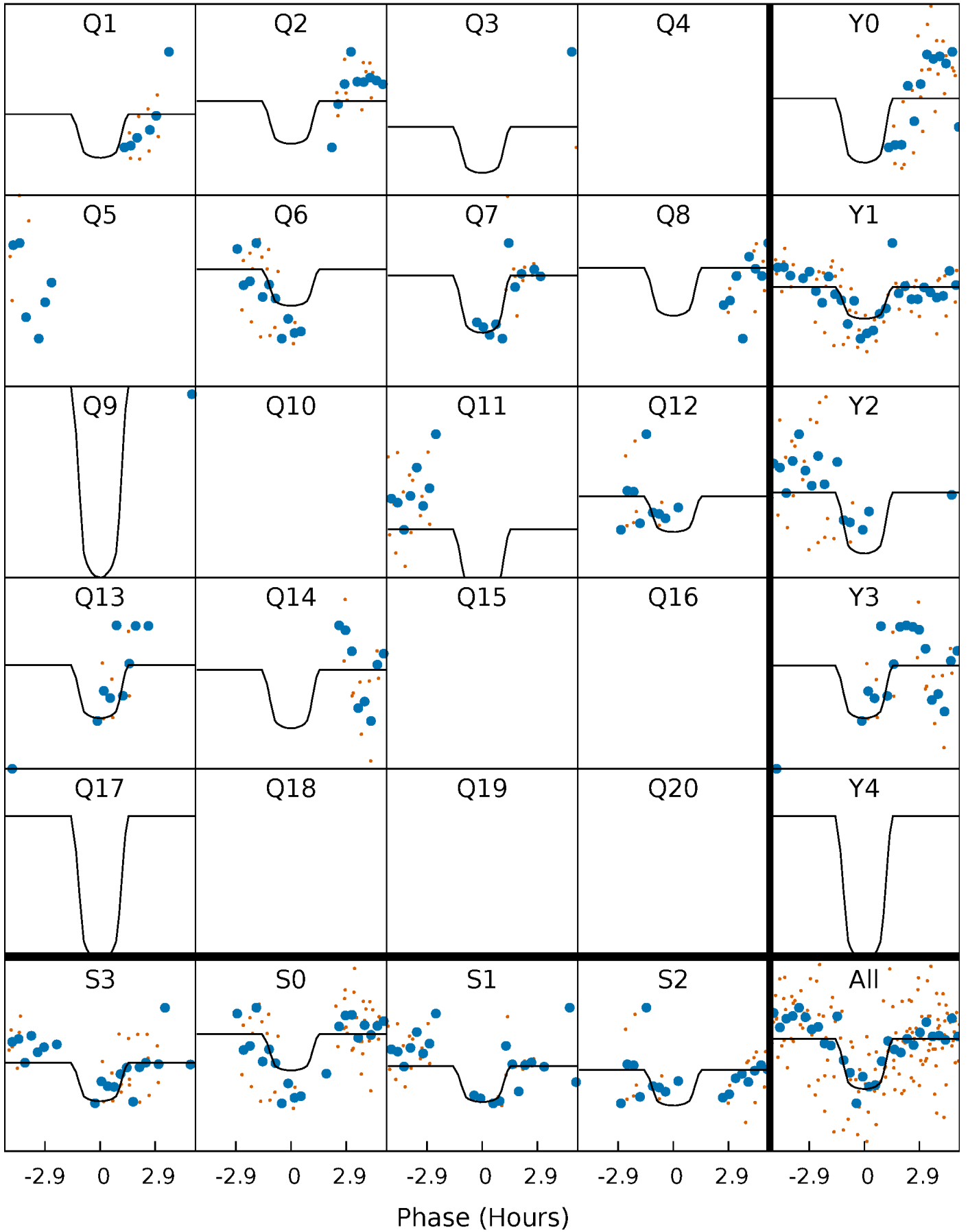
PDC Quarter-Phased Transit Curves

TCE 007101676-04 P= 17.371501 Days $T_0=139.599201$ (BKJD)



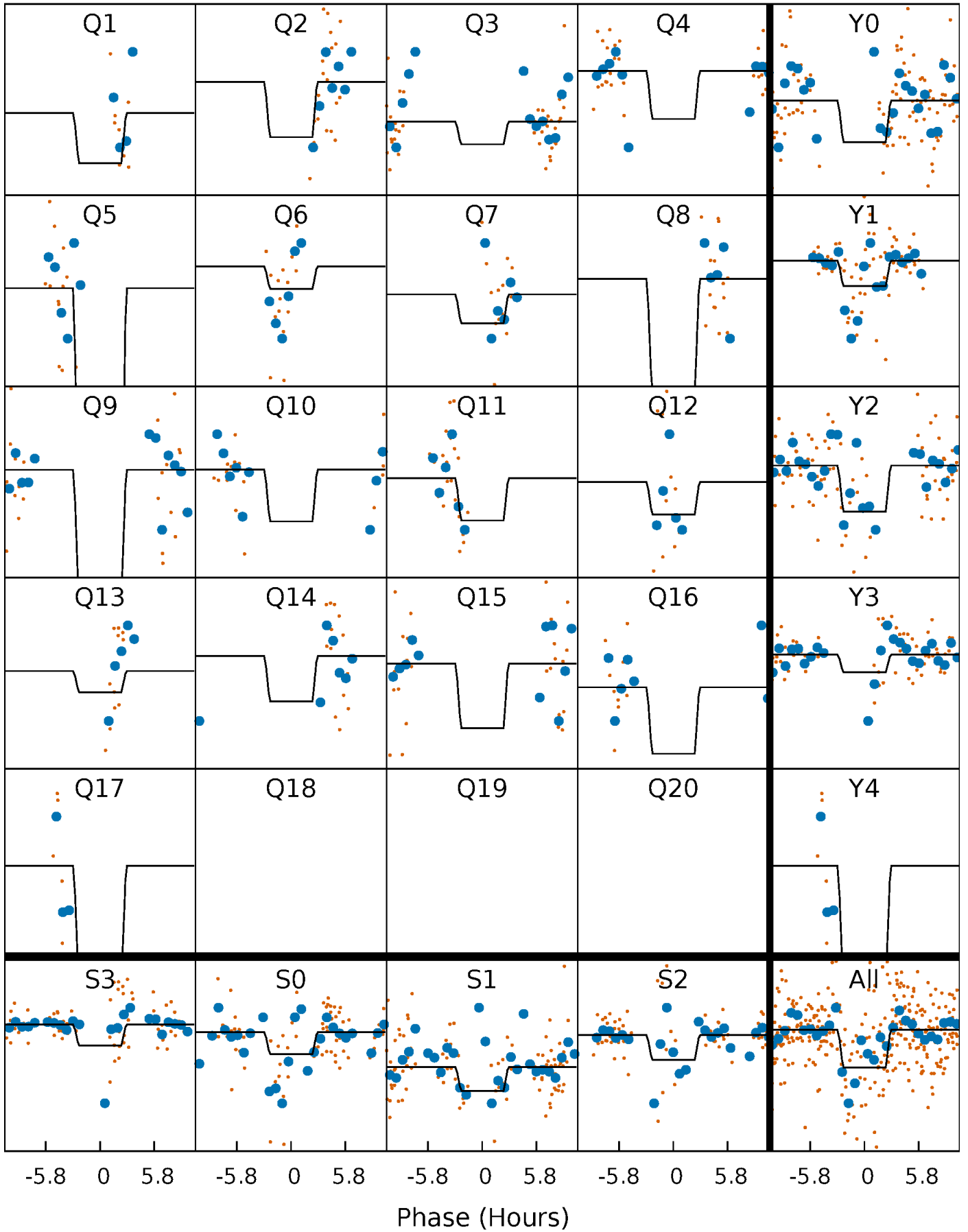
DV Quarter-Phased Transit Curves

TCE 007101676-04 P= 17.371501 Days $T_0=139.599201$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

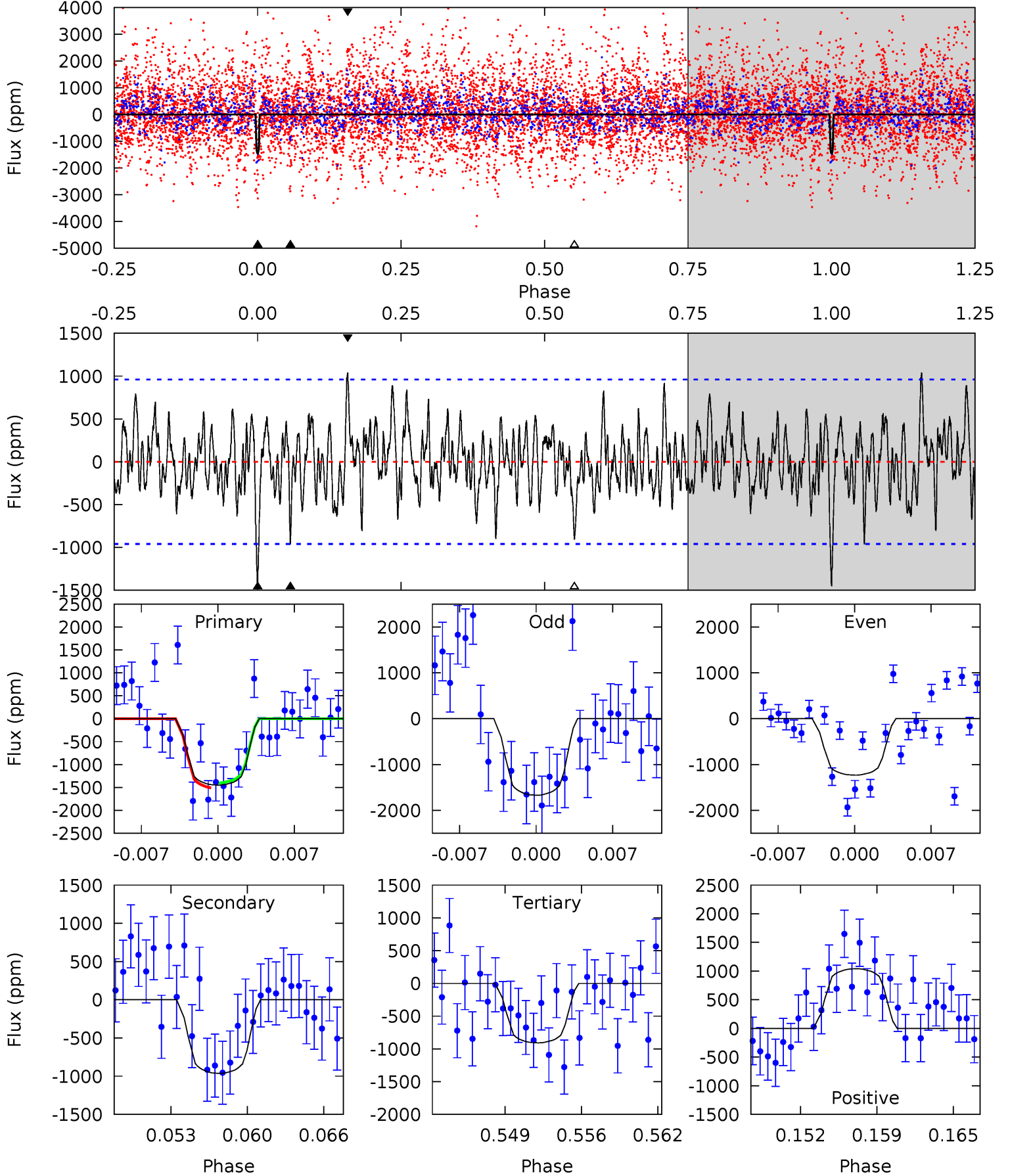
TCE 007101676-04 P= 17.370890 Days $T_0=139.599182$ (BKJD)



DV Model-Shift Uniqueness Test

007101676-04, P = 17.371501 Days, E = 122.227700 Days

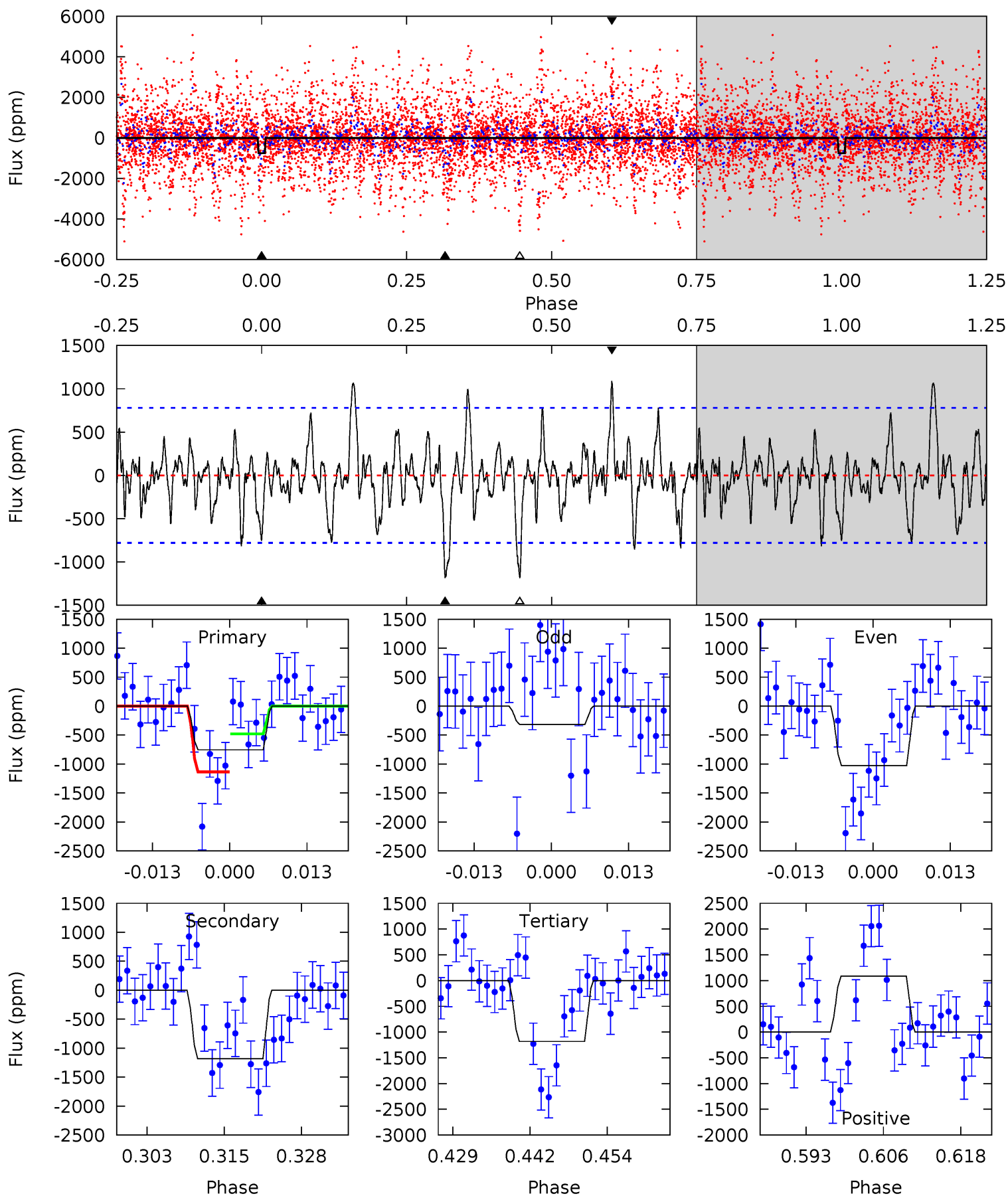
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.71	5.12	4.83	5.54	5.11	2.72	1.64	2.89	2.18	0.30	-0.41	1.19	1.04	0.42	0.29



Alt Model-Shift Uniqueness Test

007101676-04, P = 17.370890 Days, E = 122.228292 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.82	7.57	7.55	6.95	4.98	2.49	1.81	-2.74	-2.14	0.01	0.62	2.33	0.96	0.48	2.09



Stellar Parameters For KIC 007101676

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7677^{+241}_{-295}	$4.076^{+0.170}_{-0.170}$	$-0.280^{+0.200}_{-0.300}$	$1.892^{+0.533}_{-0.436}$	$1.551^{+0.214}_{-0.235}$	$0.323^{+0.301}_{-0.158}$
	+3%/-4%	+4%/-4%	+71%/-107%	+28%/-23%	+14%/-15%	+93%/-49%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007101676-04 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-964±188	$16.72^{+17.20}_{-11.75}$	1659^{+144}_{-113}	4757^{+4263}_{-1063}	42^{+467}_{-32}
Alt.	-1185±157	$17.28^{+15.54}_{-11.51}$	1666^{+126}_{-118}	4896^{+3535}_{-1069}	50^{+377}_{-37}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

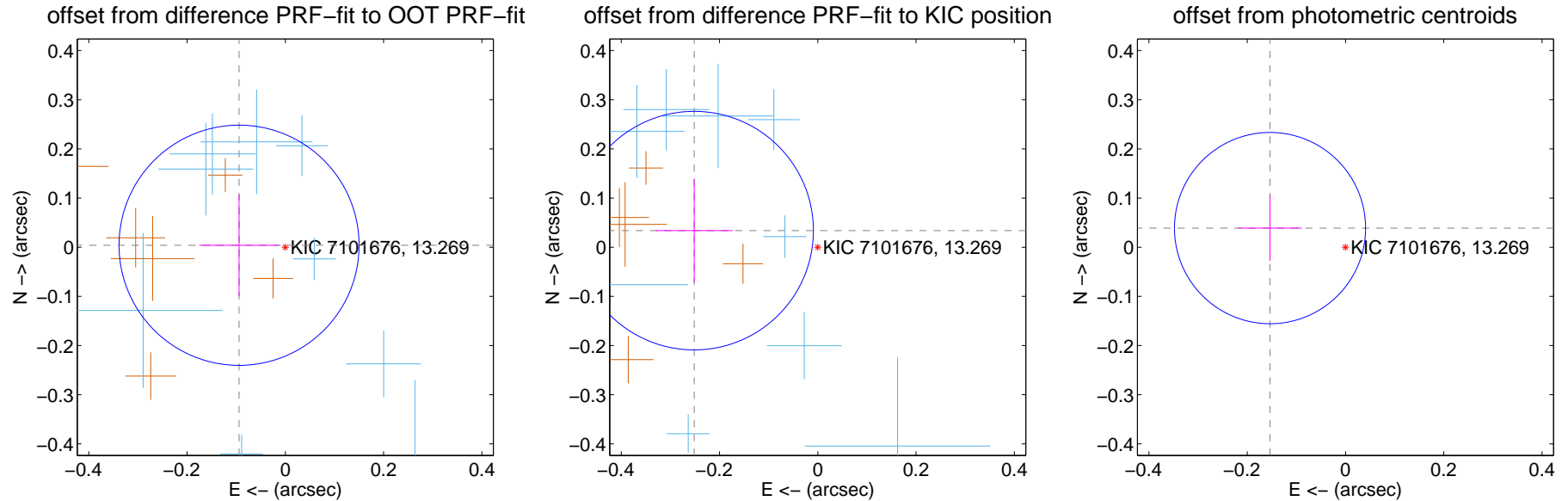
DV Centroid Data

Supplemental centroid analysis for 007101676-04. Kepler magnitude: 13.27. Transit SNR 7.90

There are 10 quarters with good PRF difference image offsets

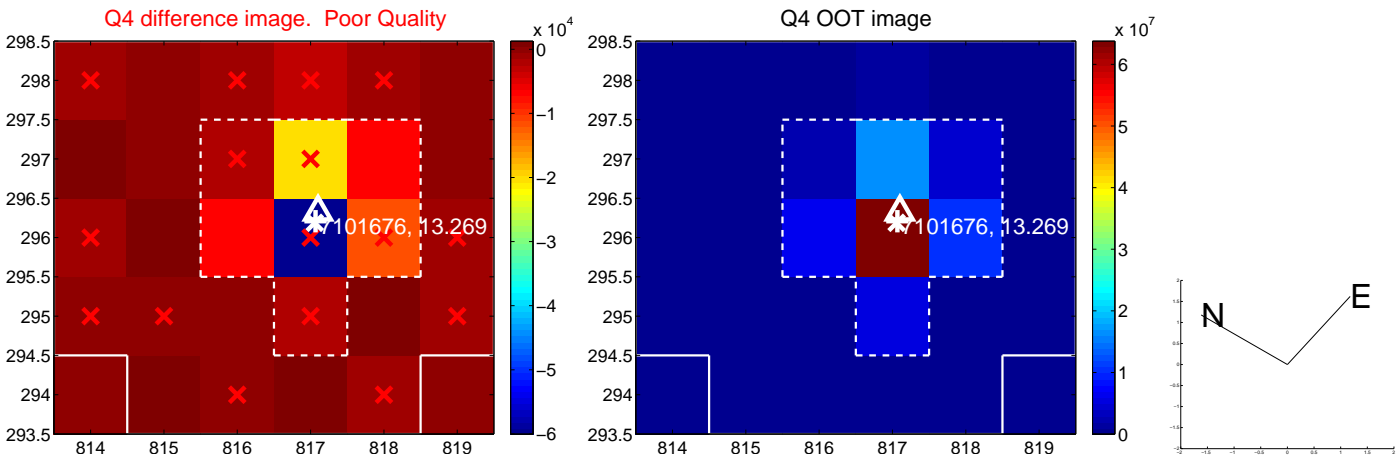
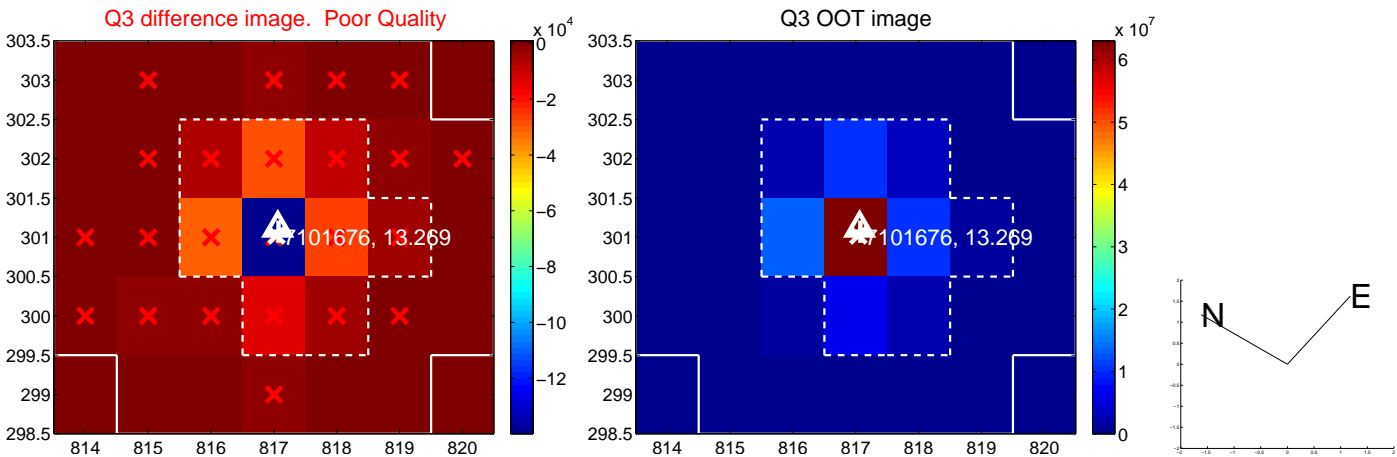
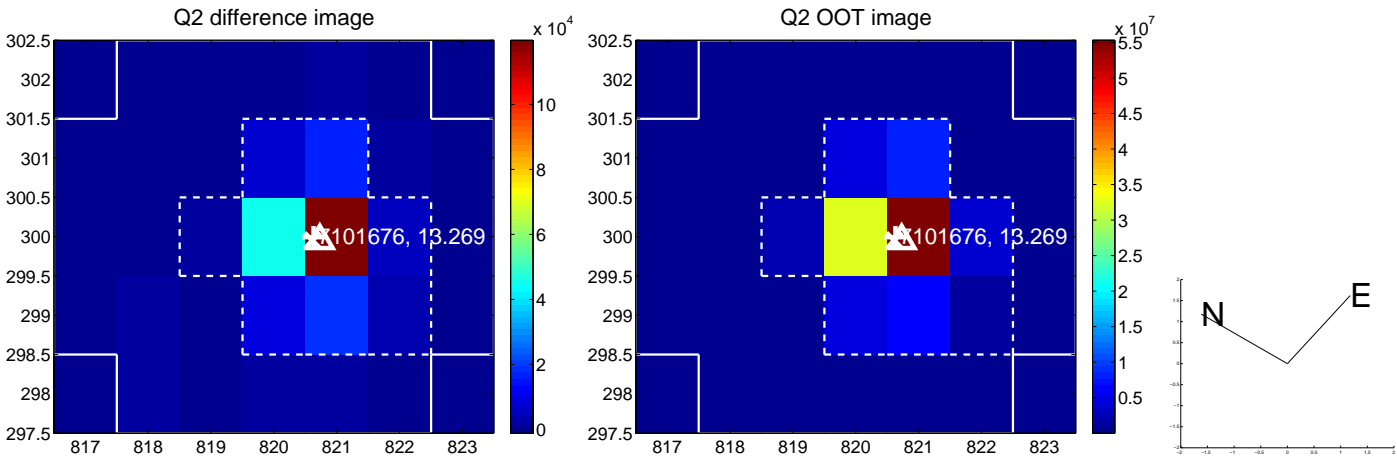
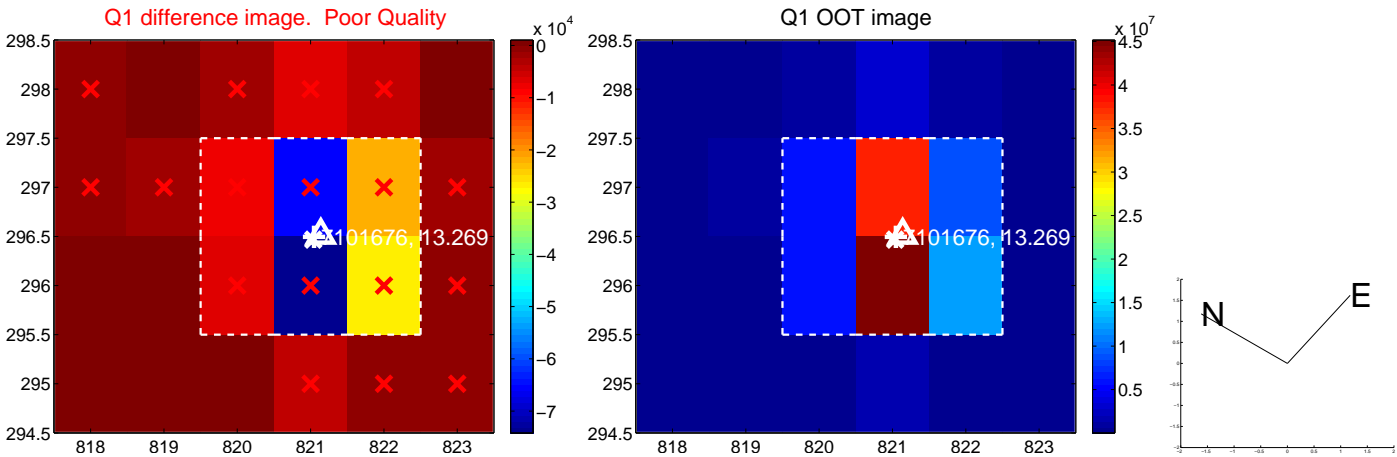
The direct PRF centroid is offset from the target star catalog position by about 0.14 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.094 ± 0.081	1.16	0.094 ± 0.081	0.004 ± 0.103
PRF-fit source offset from KIC position	0.254 ± 0.081	3.14	0.252 ± 0.079	0.034 ± 0.105
photometric centroid source offset	0.16 ± 0.06	2.44	0.15 ± 0.06	0.04 ± 0.07

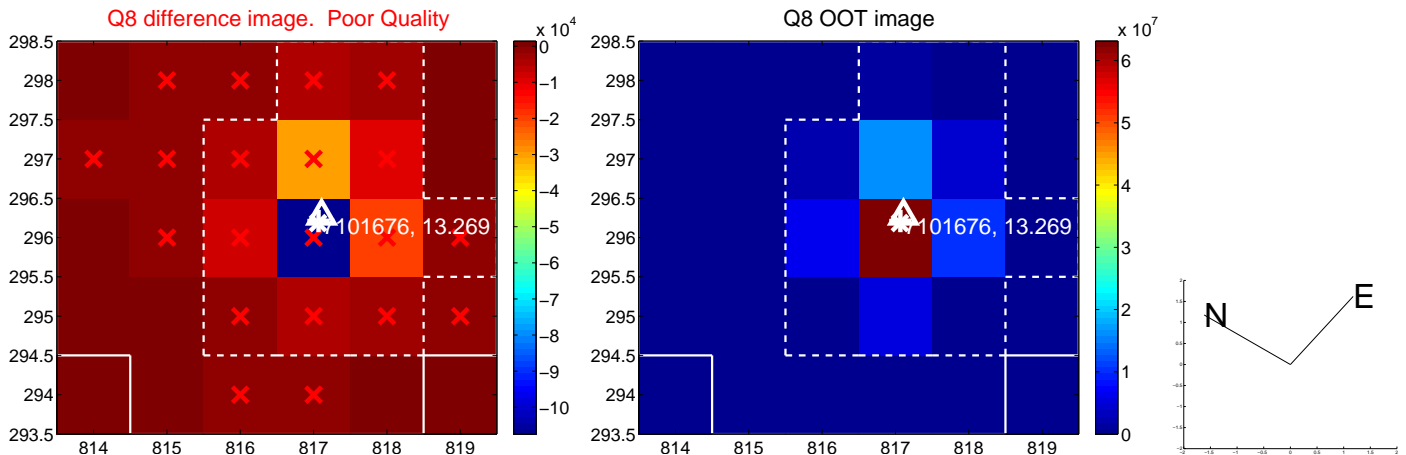
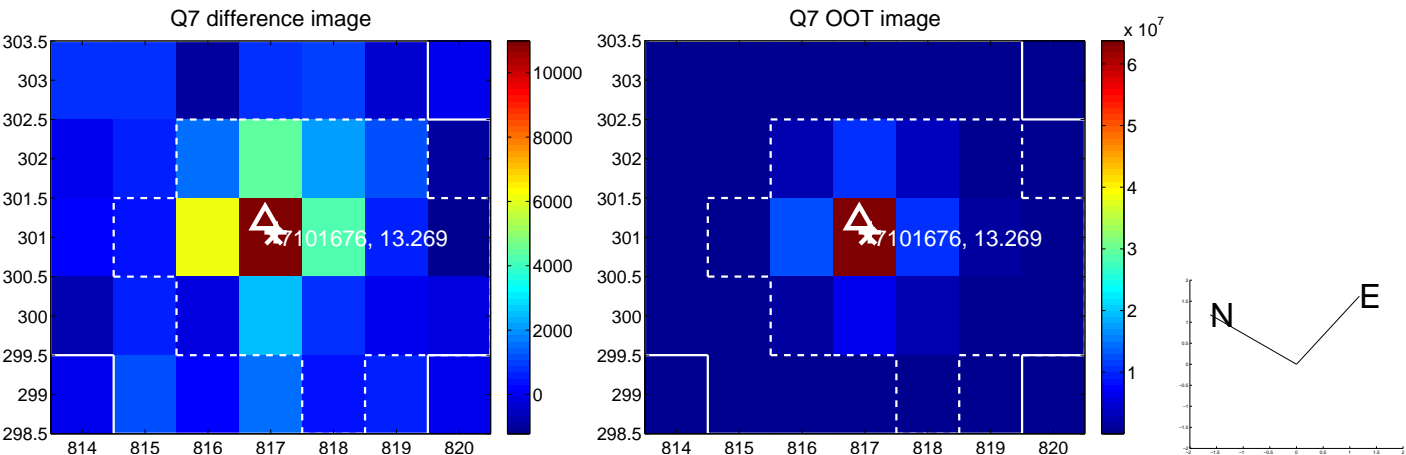
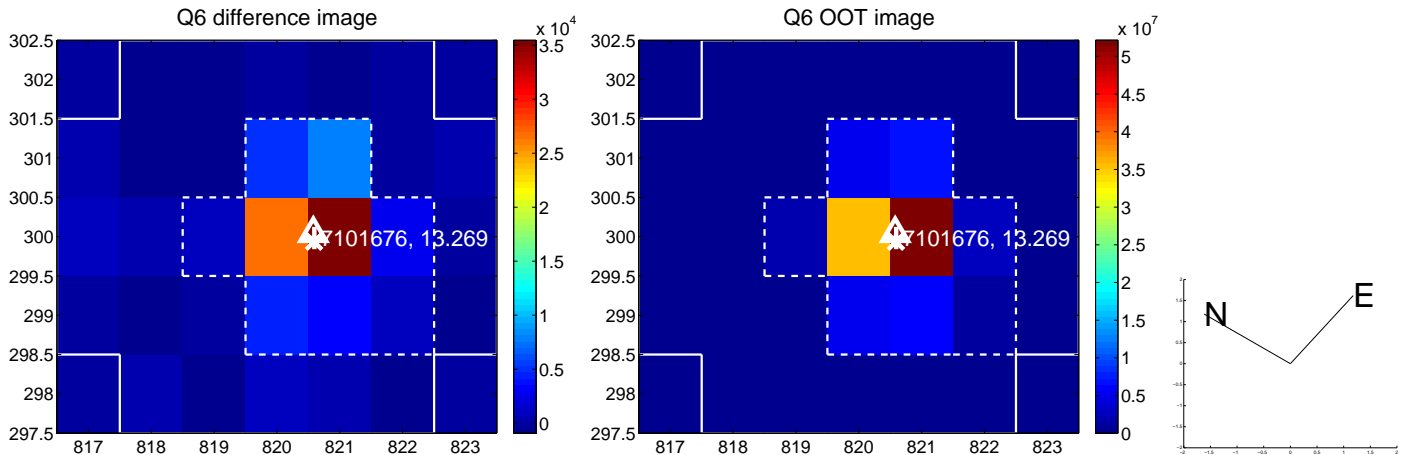
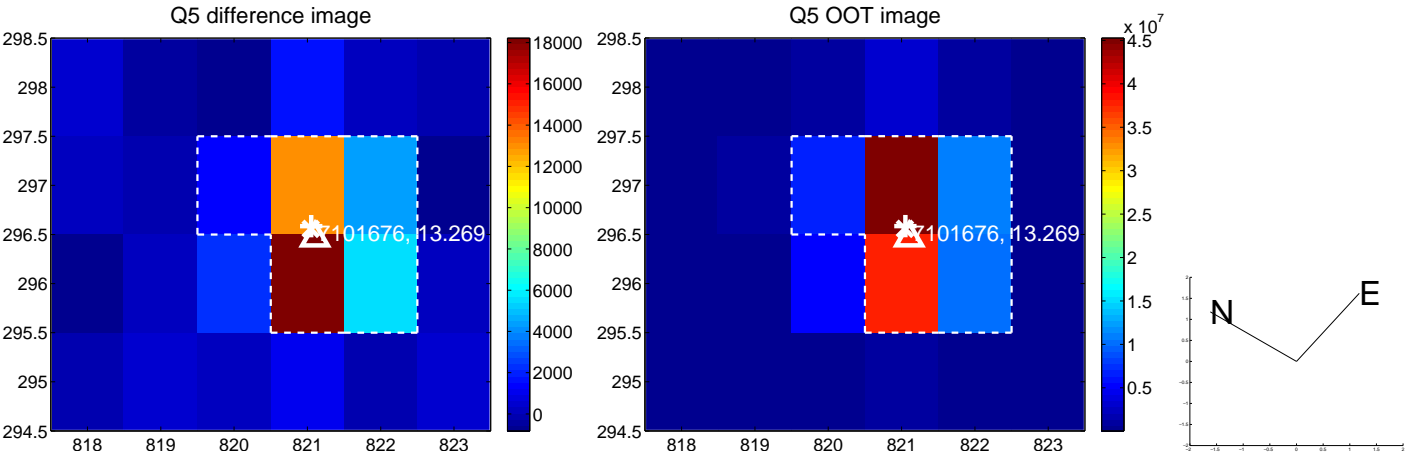


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

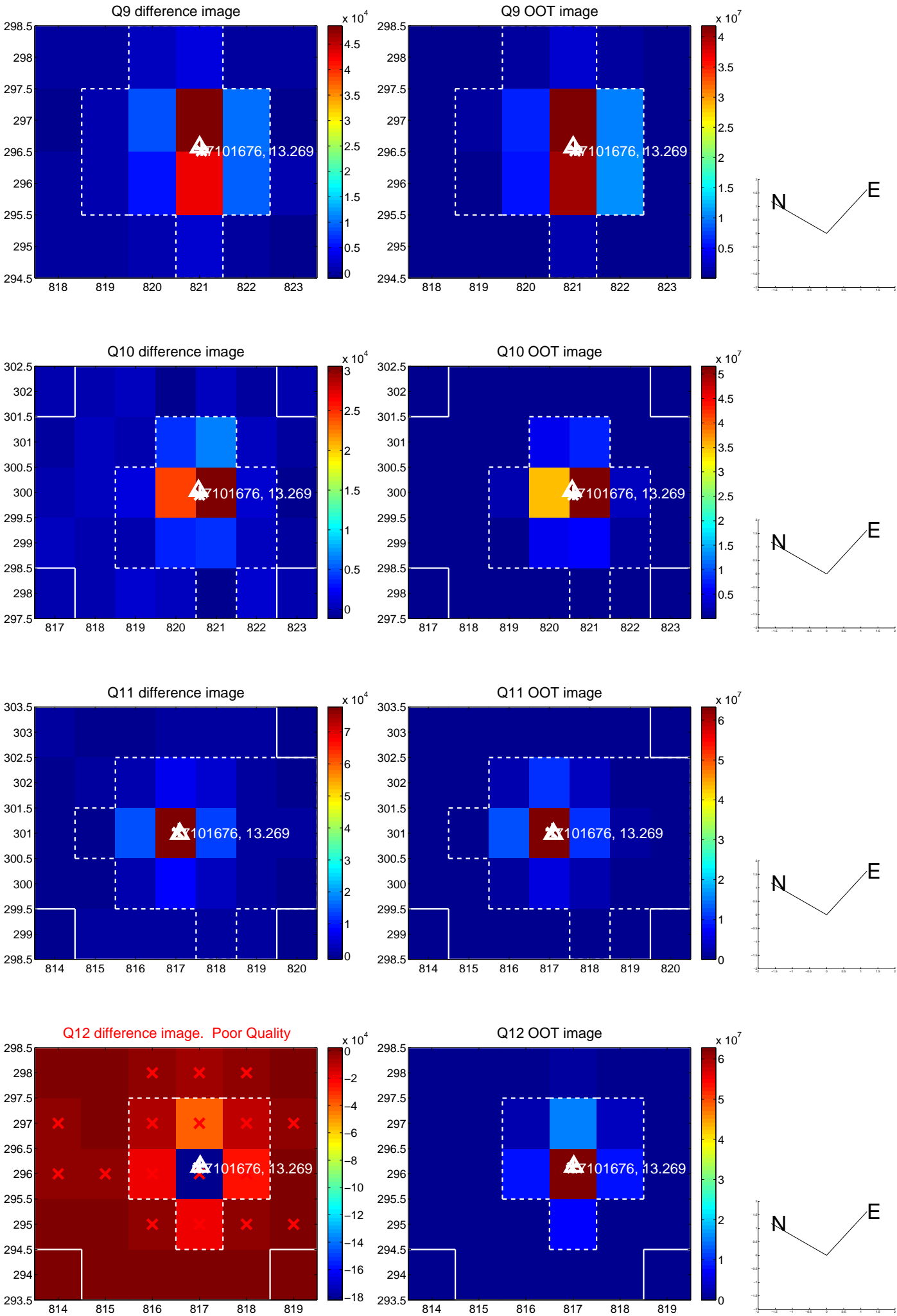
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



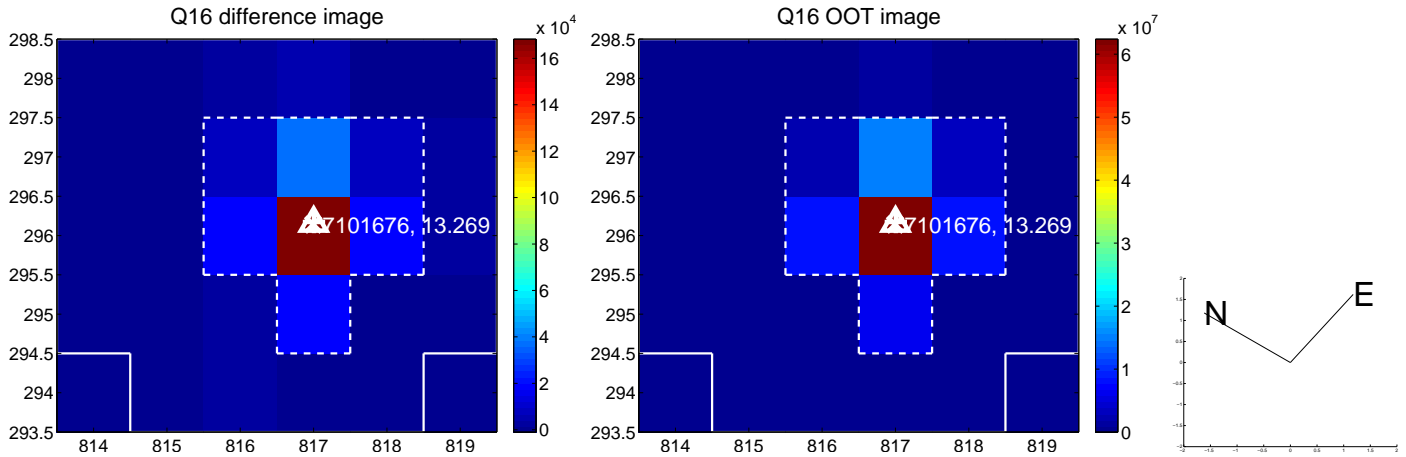
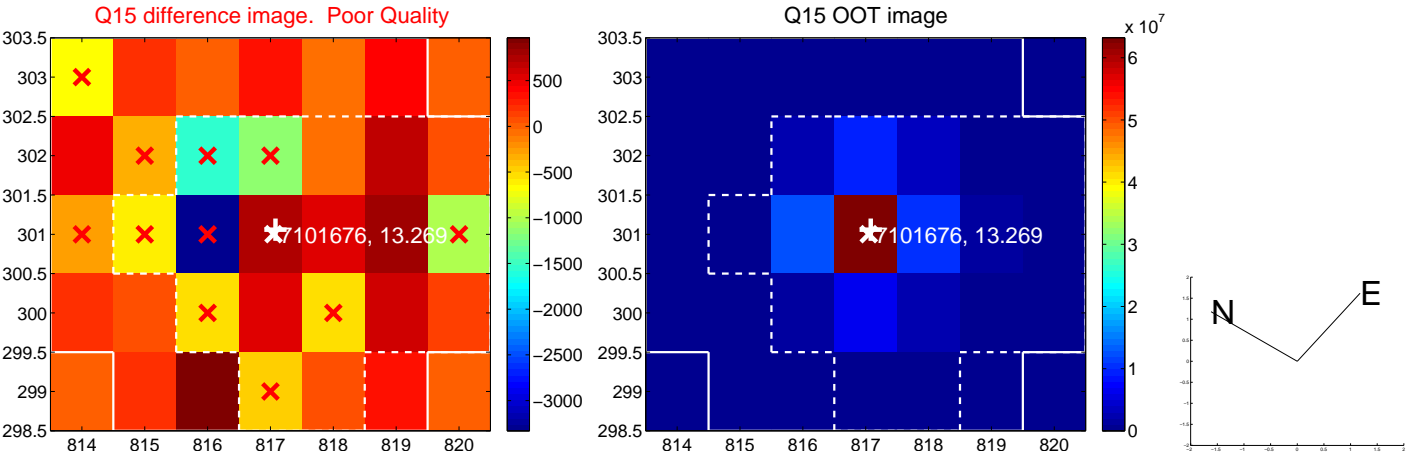
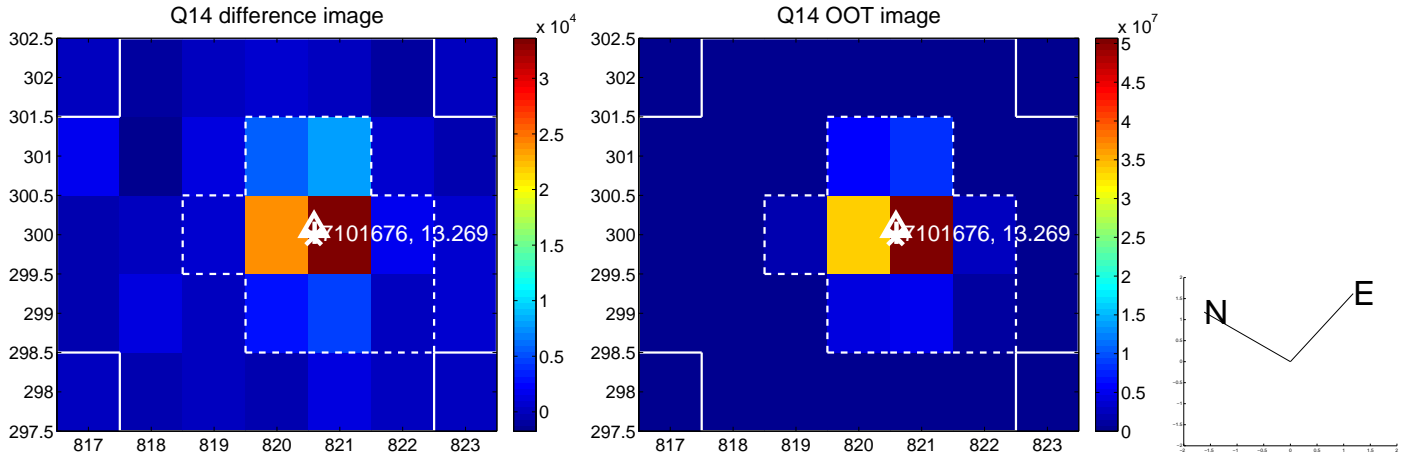
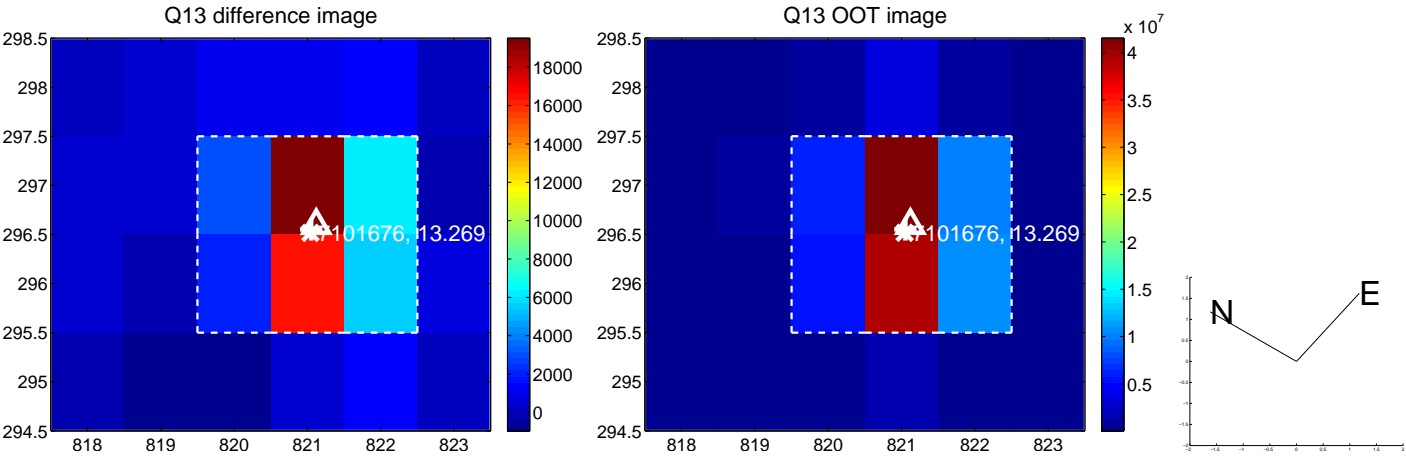
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



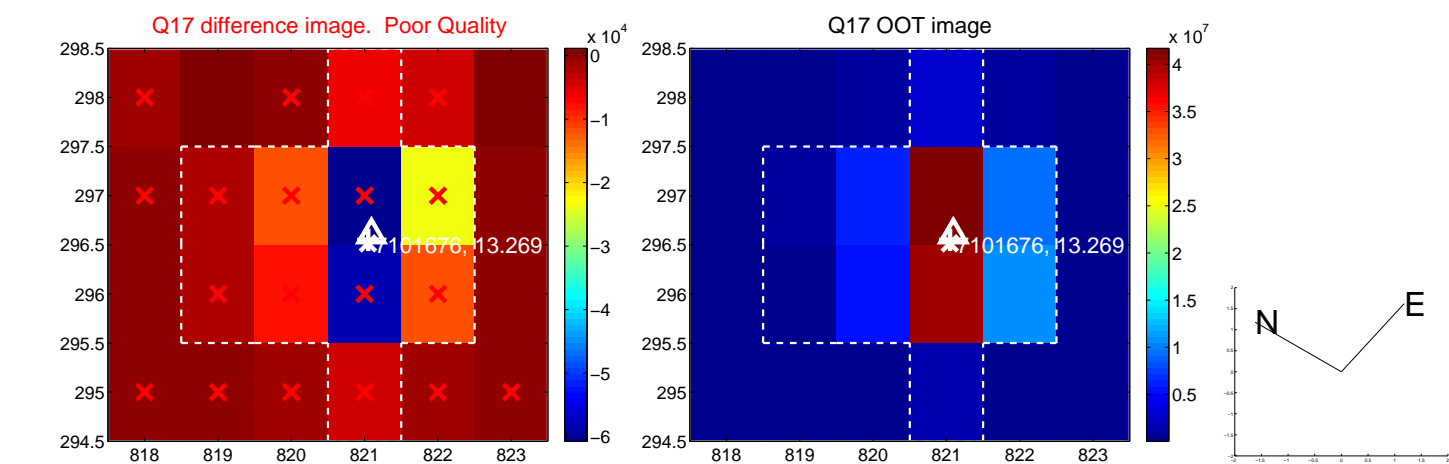
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



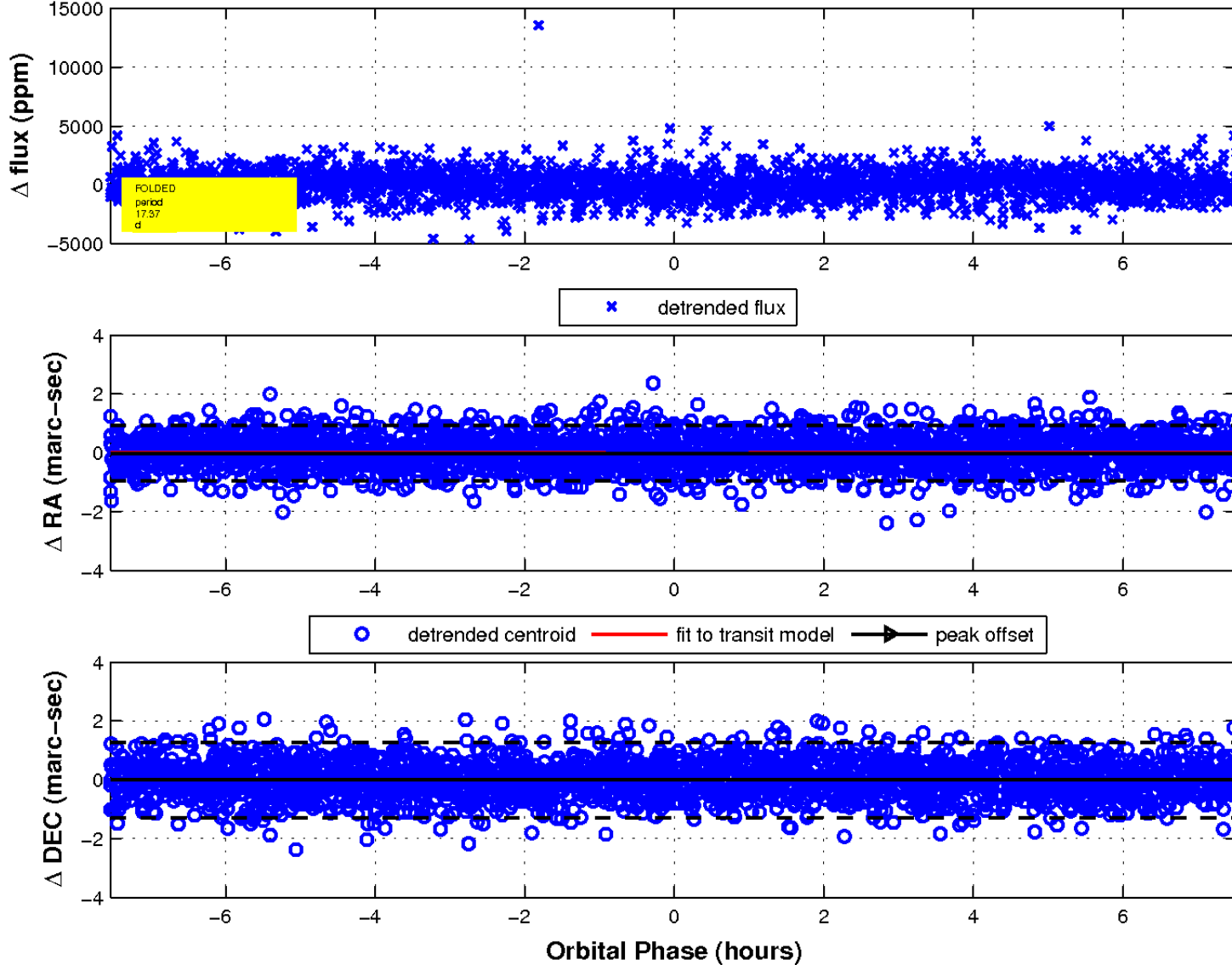
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

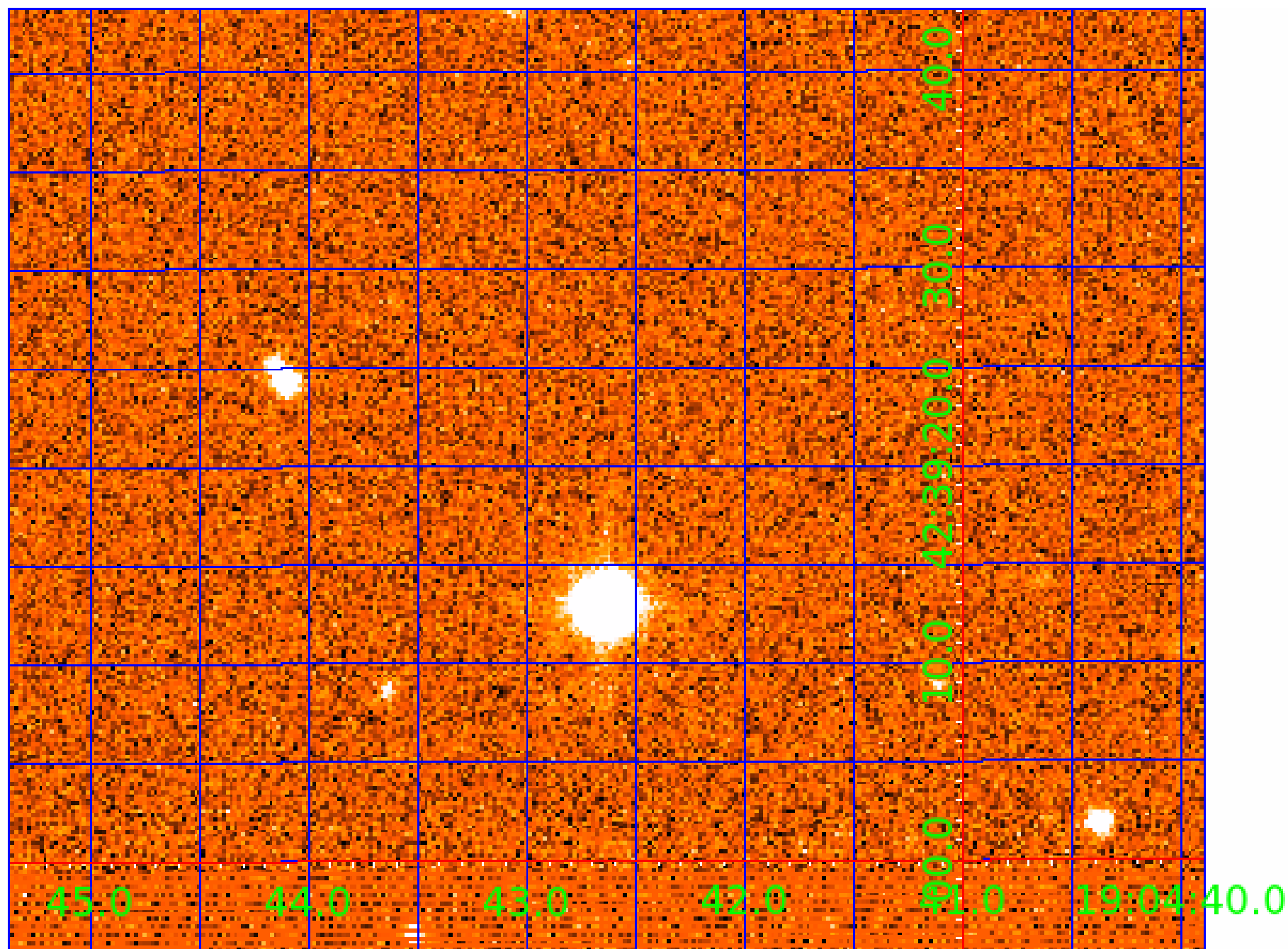


fluxWeightedCentroids, Planet 4 of 8



UKIRT Image

Declination



KIC 007101676

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007101676-01	OBS	No	0.695716	131.547106	18.1	2.521	10.4	2.1	1.89	7677	0.94	35131.68
007101676-02	OBS	No	0.695735	131.812000	53.3	2.442	10.9	5.0	1.89	7677	1.61	35130.38
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007101676-06	OBS	No	10.404243	137.342248	478.1	1.665	8.5	3.3	1.89	7677	4.53	953.51
007101676-07	OBS	No	27.841844	138.968056	1896.7	3.762	8.7	8.2	1.89	7677	11.80	256.65
007101676-08	OBS	No	55.355036	156.375783	358.6	2.000	8.9	-1.0	1.89	7677	3.63	102.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
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007101676-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
007101676-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES
007101676-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007101676-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007101676-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
007101676-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

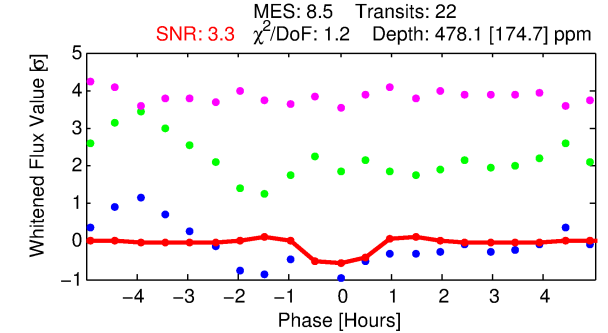
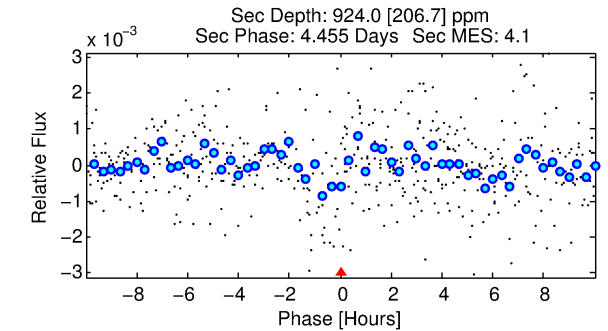
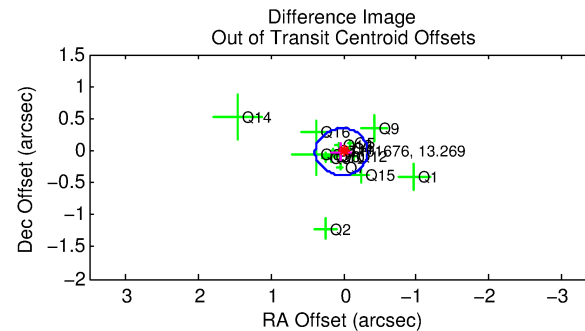
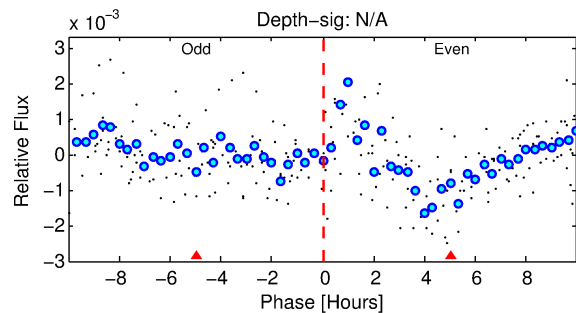
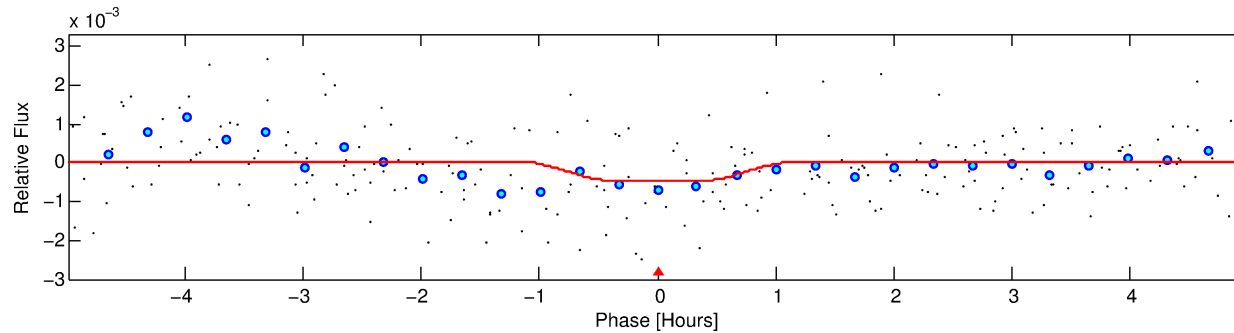
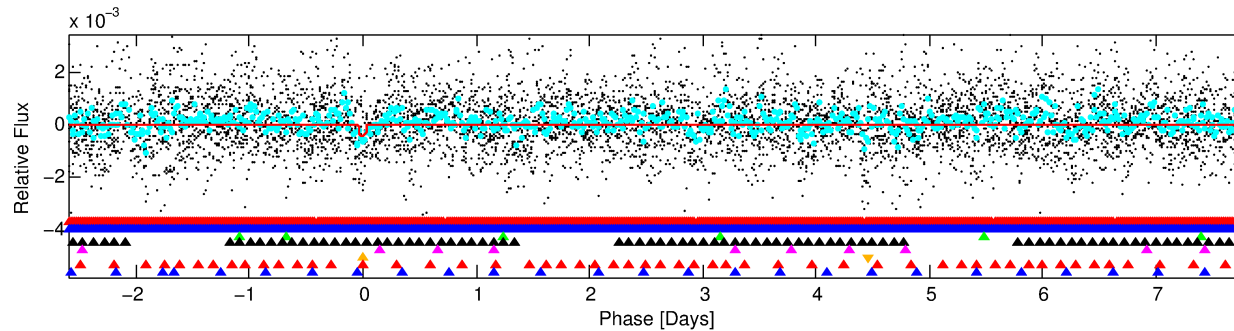
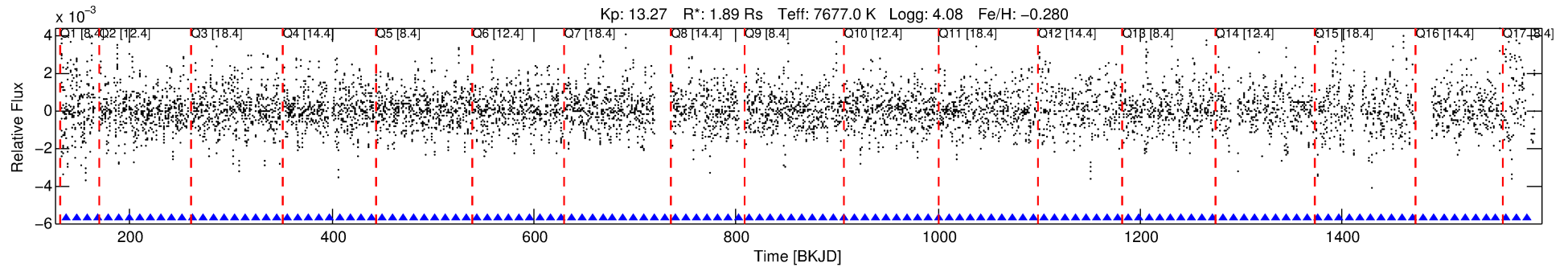
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007101676-06

No Significant Match Found

DV One-Page Summary

KIC: 7101676 Candidate: 6 of 8 Period: 10.404 d



DV Fit Results:

Period = 10.40424 [0.00017] d
Epoch = 137.3422 [0.0120] BKJD
Rp/R* = 0.0220 [0.0475]
a/R* = 31.97 [392.67]
b = 0.77 [6.49]
Seff = 953.51 [339.80]
Teq = 1417 [126] K
Rp = 4.53 [9.89] Re
a = 0.1081 [0.0247] AU
Ag = 289.05 [1256.26] [0.23σ]
Teffp = 9033 [9794] K [0.78σ]

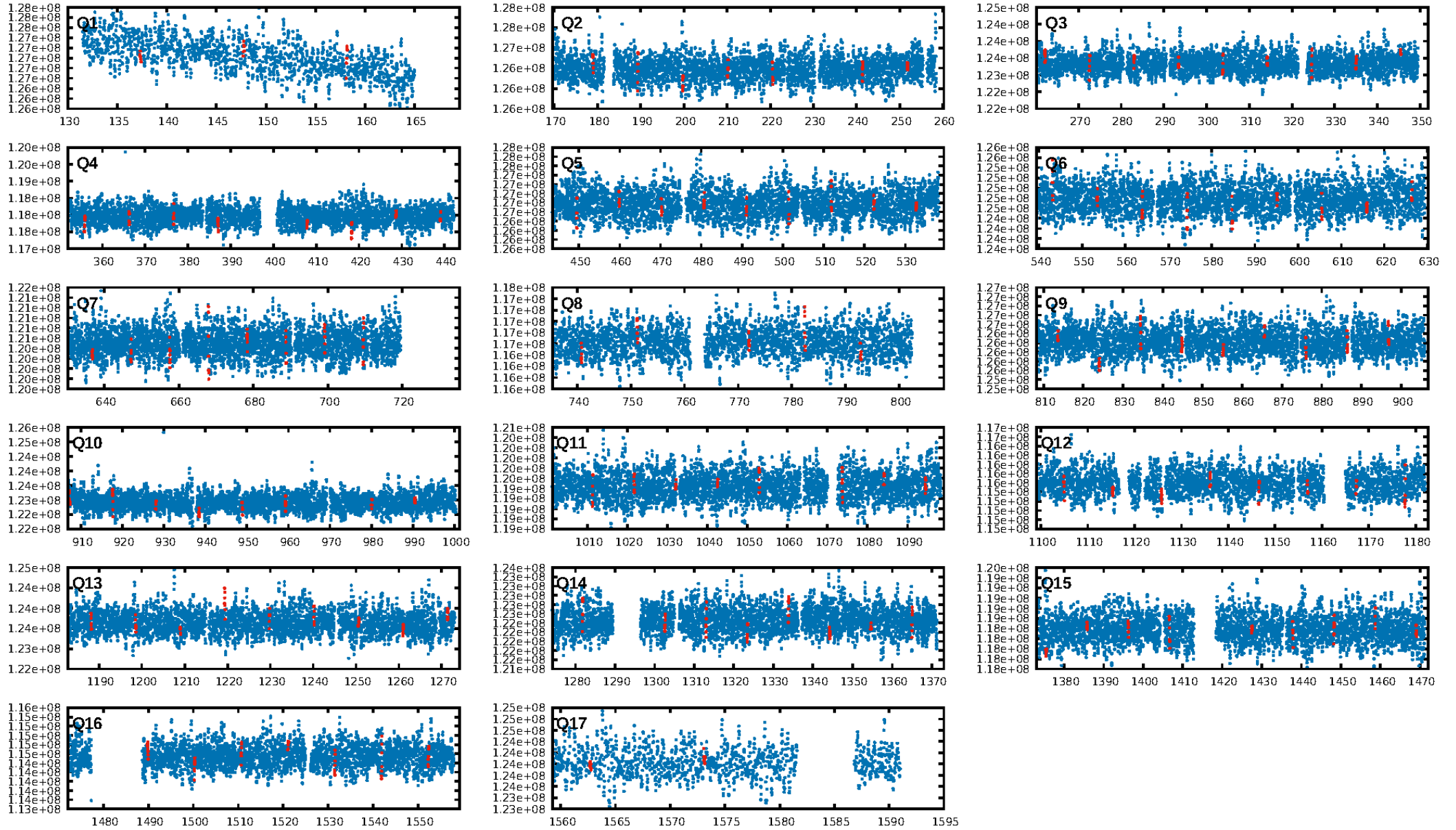
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [78.84σ]
LongPeriod-sig: 100.0% [55.44σ]
ModelChiSquare2-sig: 4.1%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [22/22]
GhostDiagnostic-chr: -5.502
Centroid-sig: 80.0%
Centroid-so: 0.233 arcsec [1.20σ]
OotOffset-rm: 0.034 arcsec [0.28σ]
KicOffset-rm: 0.183 arcsec [1.30σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.56 [9/16]
DiffImageOverlap-fno: 0.00 [0/17]

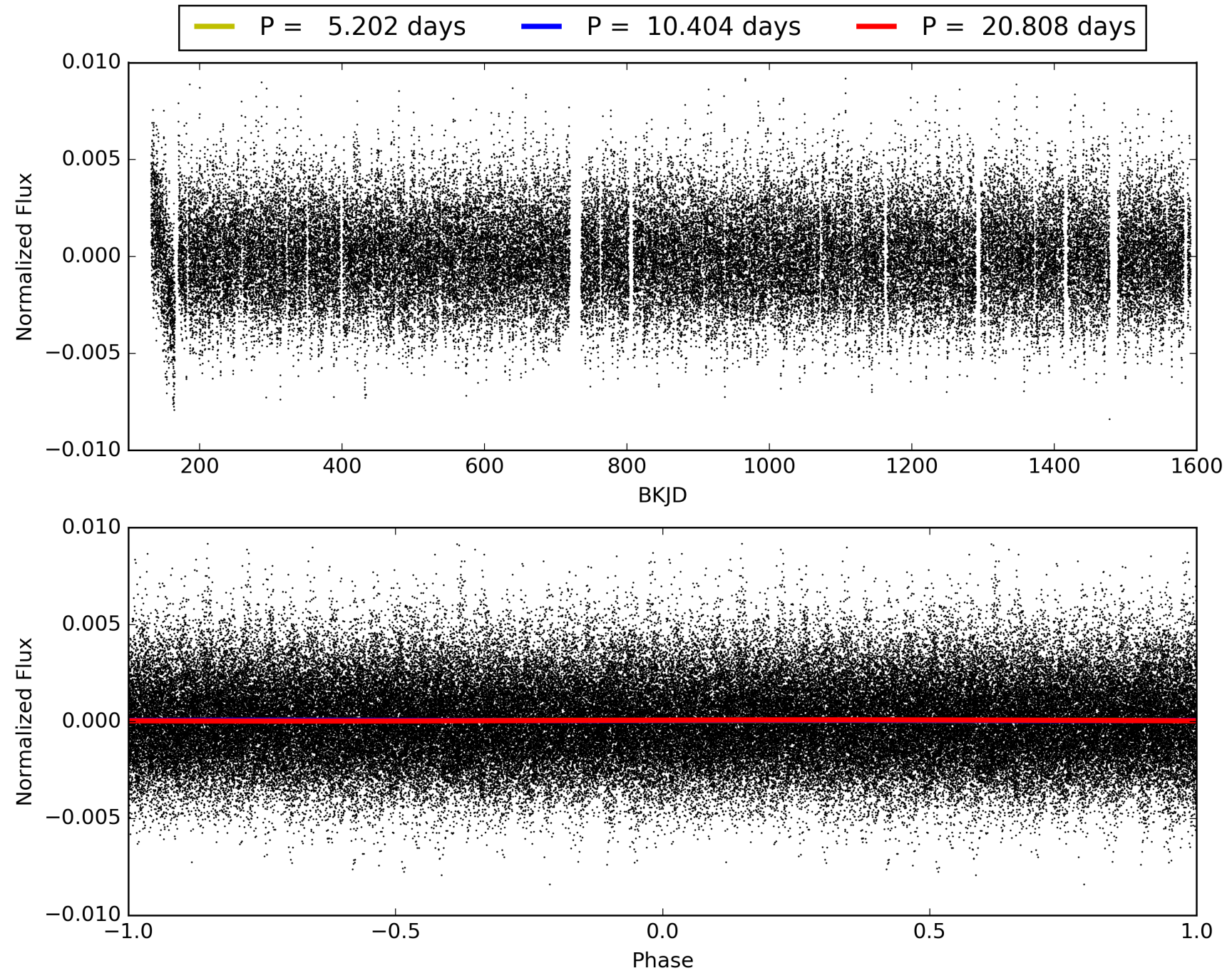
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:59:28 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007101676-06, PDC Light Curves

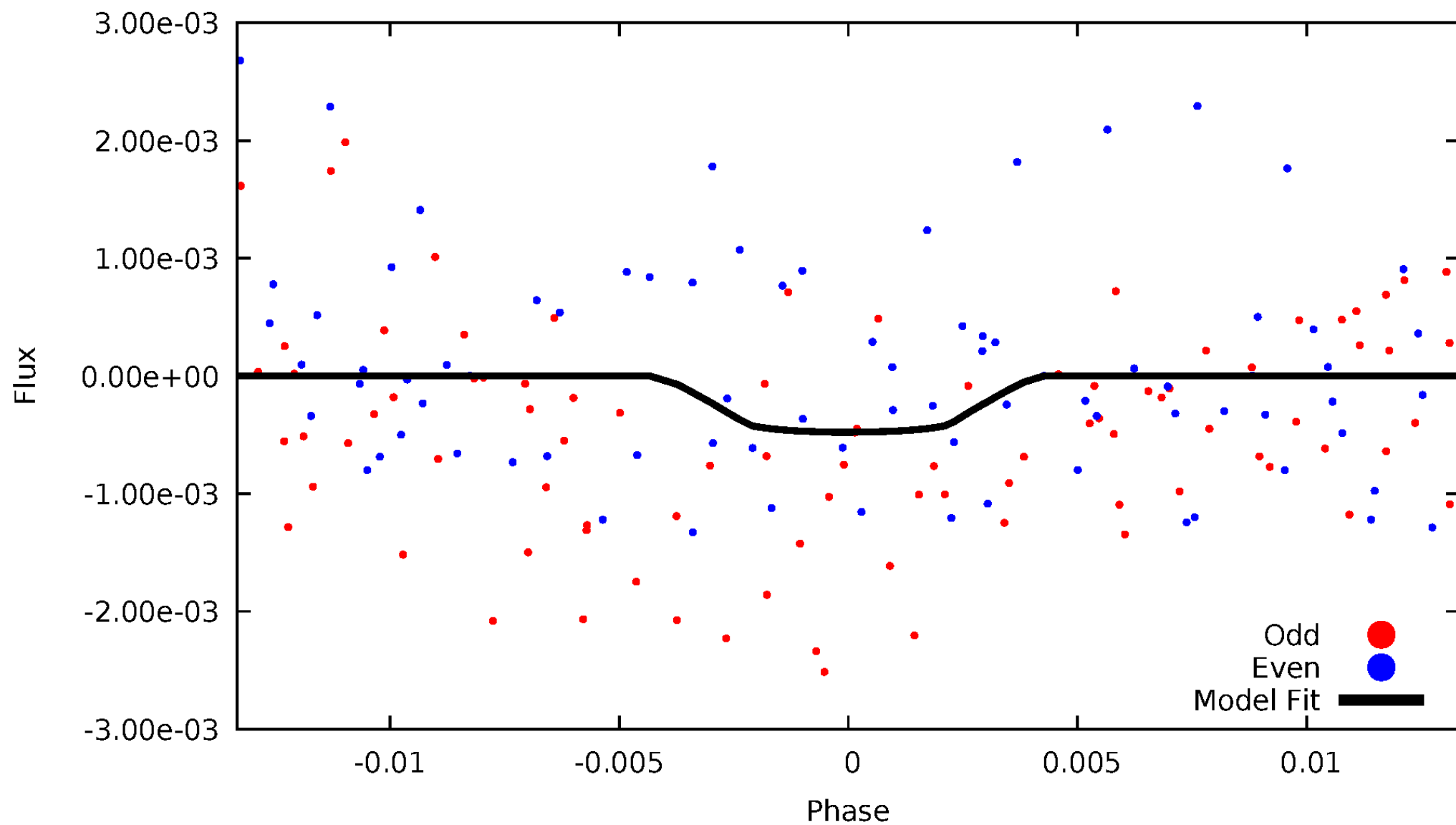


TCE 007101676-06



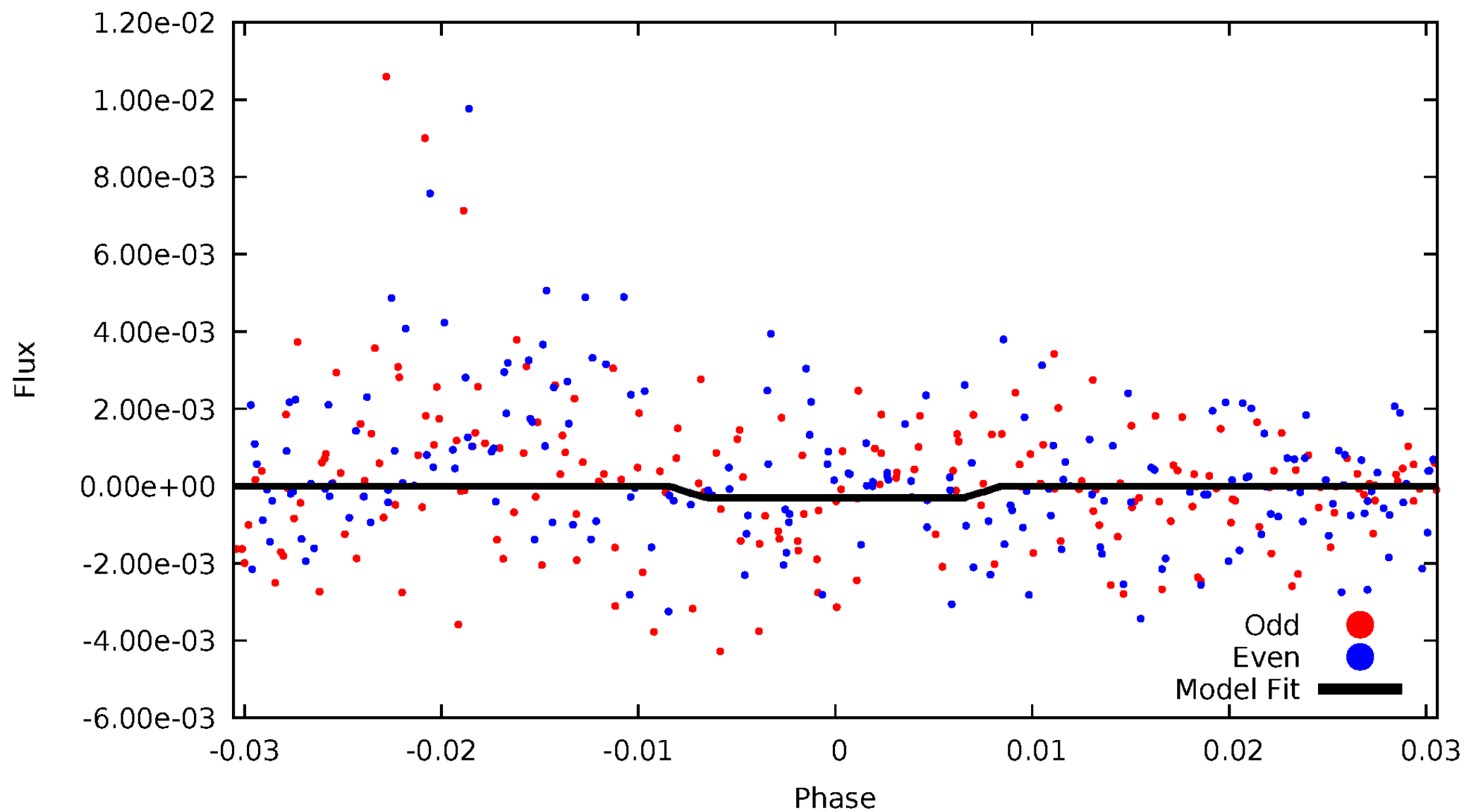
DV Odd/Even

TCE 007101676-06



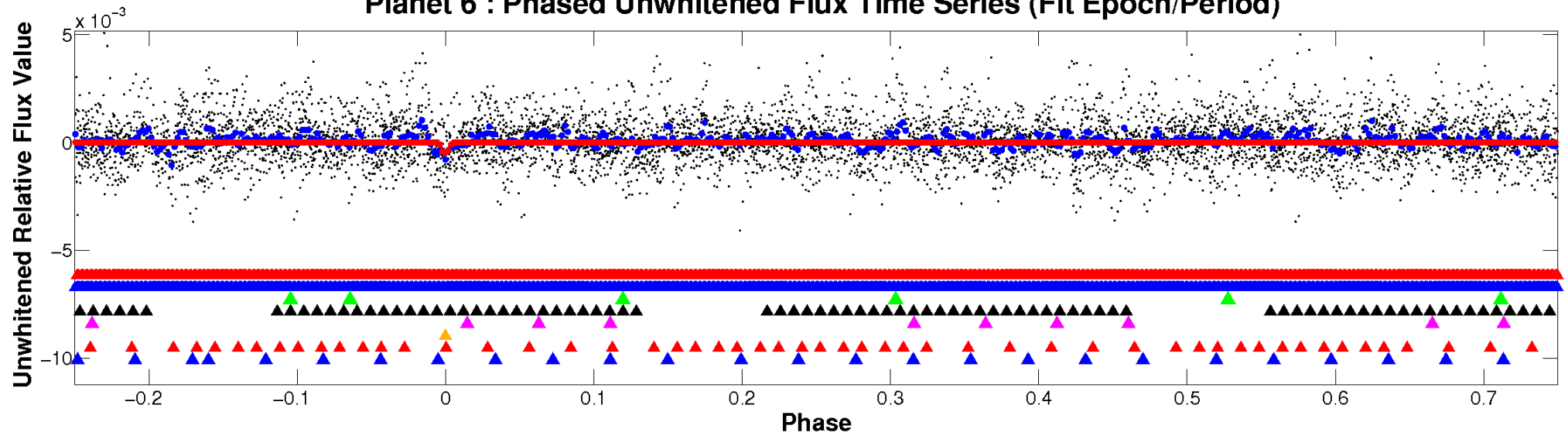
ALT Odd/Even

TCE 007101676-06

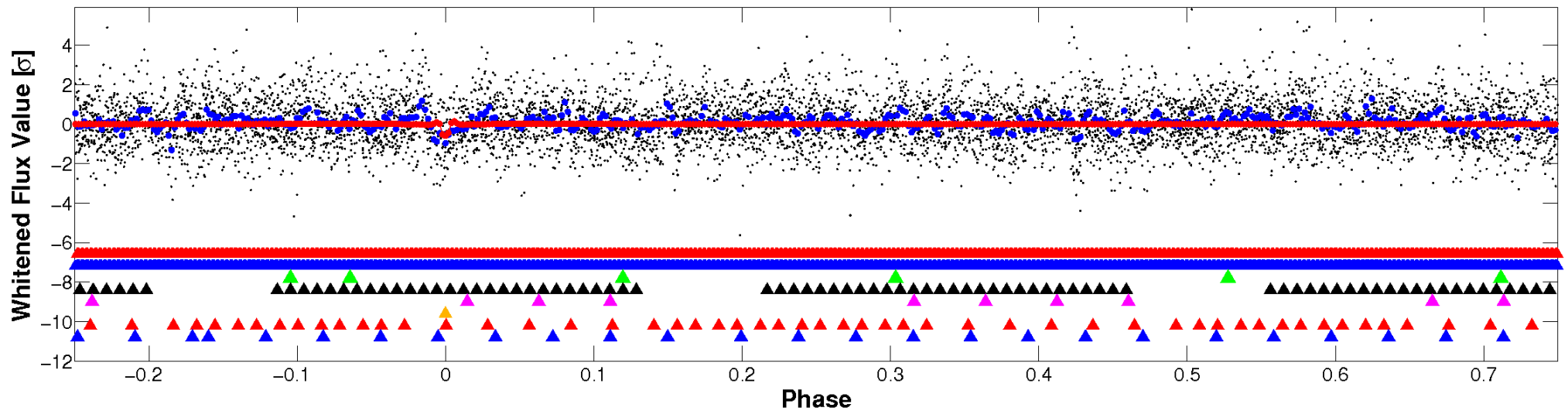


Non-Whitened Vs. Whitened Light Curve

Planet 6 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

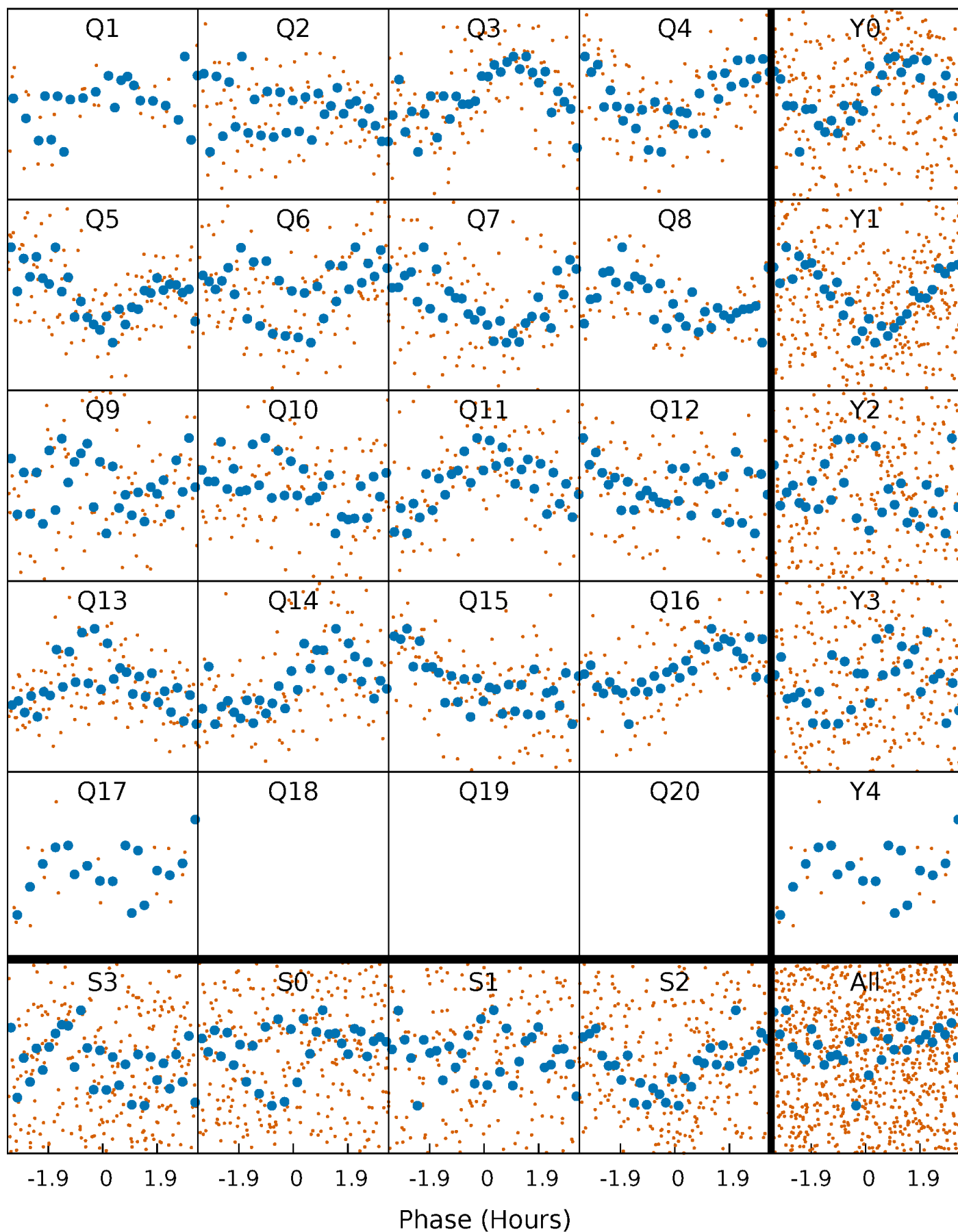


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



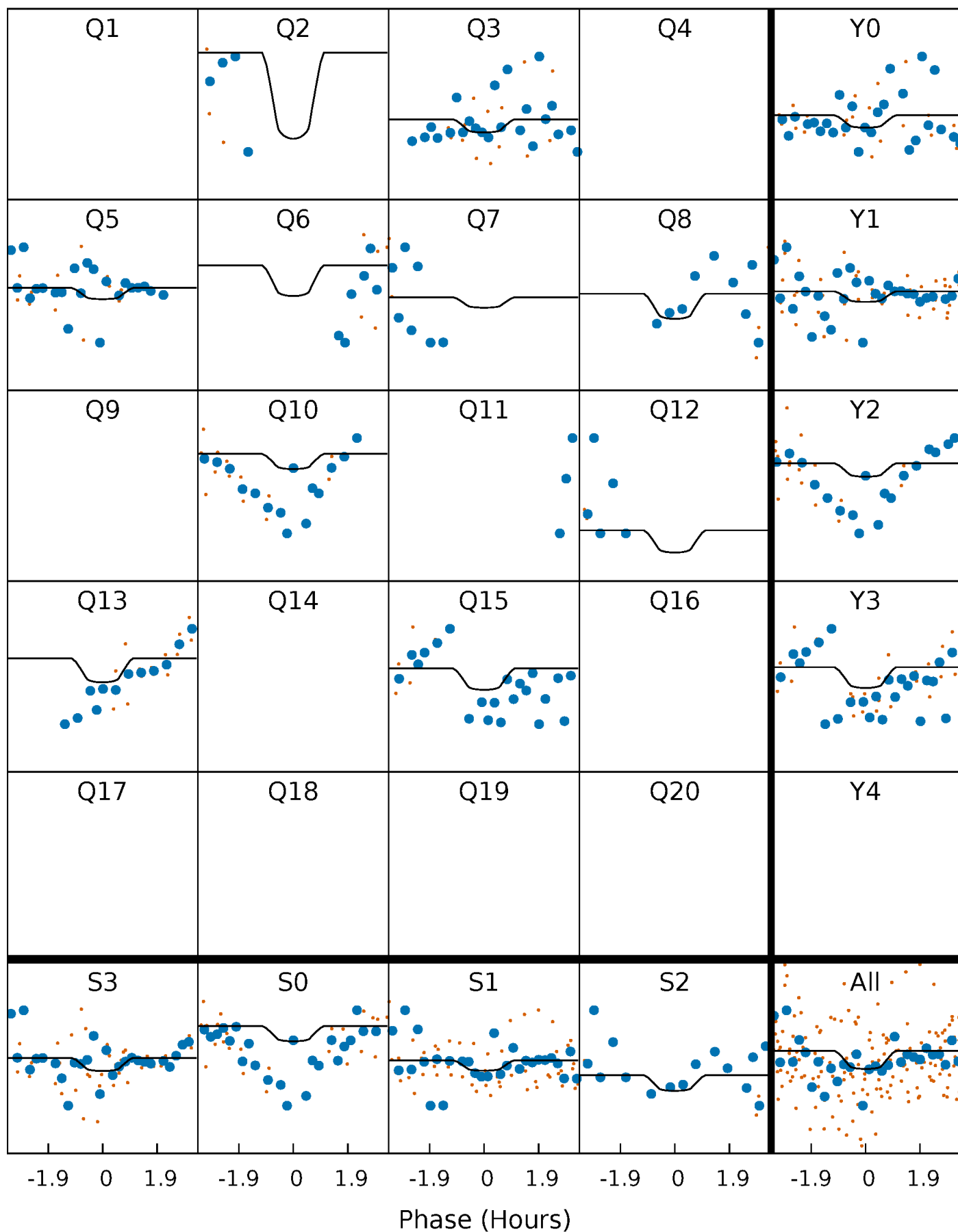
PDC Quarter-Phased Transit Curves

TCE 007101676-06 P= 10.404243 Days $T_0=137.342248$ (BKJD)



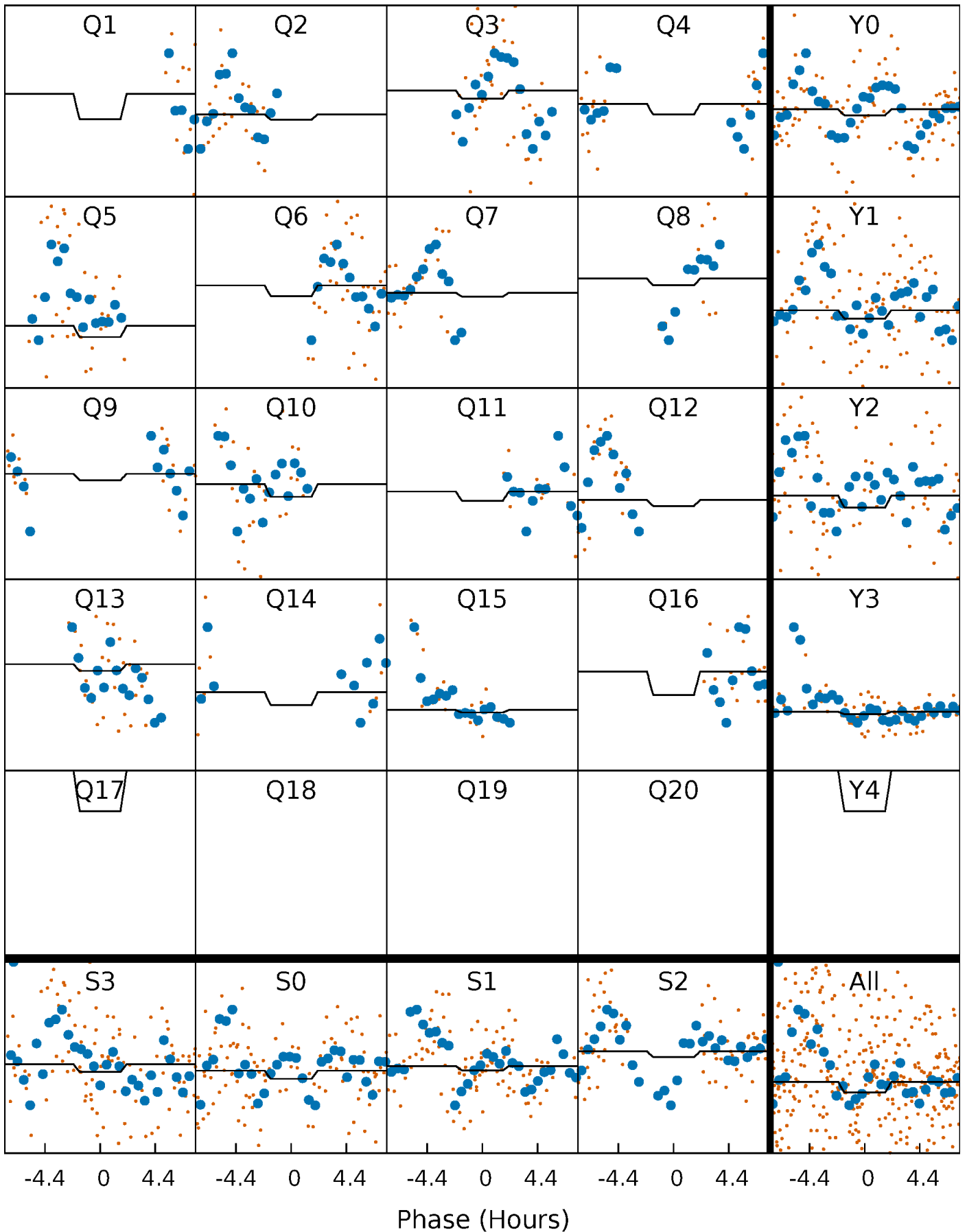
DV Quarter-Phased Transit Curves

TCE 007101676-06 P= 10.404243 Days $T_0=137.342248$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

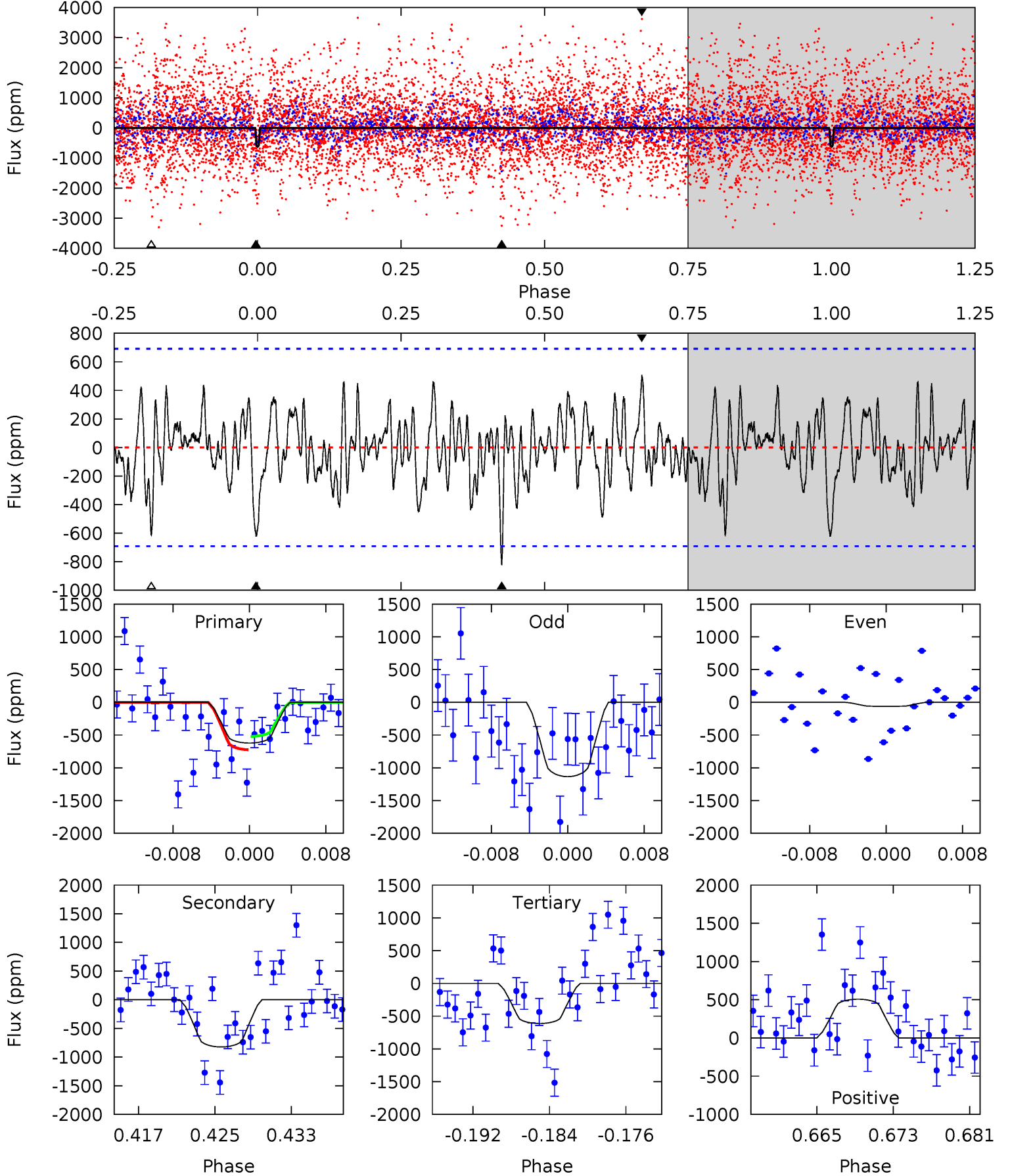
TCE 007101676-06 P= 10.404876 Days $T_0=137.322541$ (BKJD)



DV Model-Shift Uniqueness Test

007101676-06, P = 10.404243 Days, E = 126.938005 Days

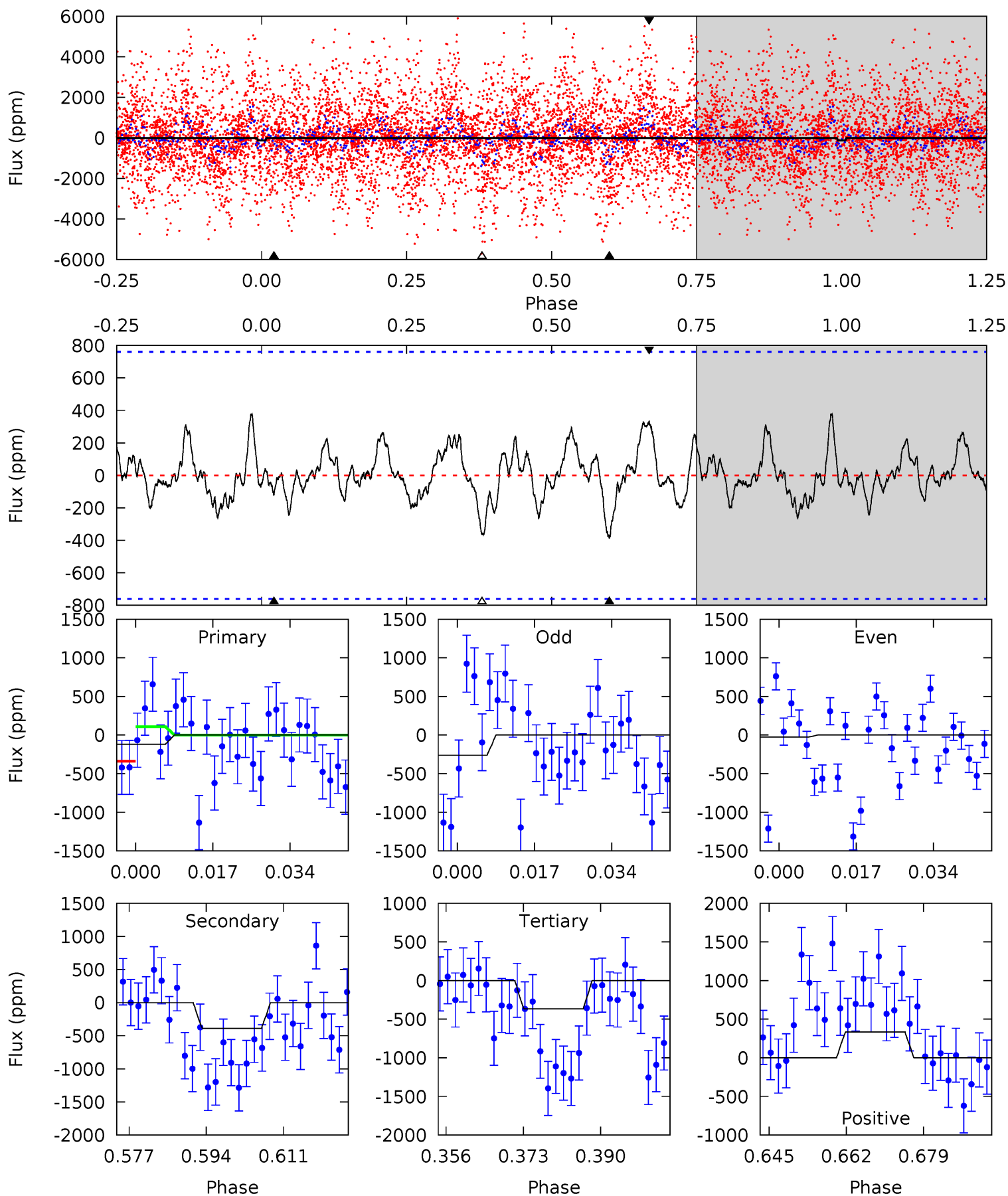
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.56	6.04	4.49	3.72	5.07	2.65	1.39	0.07	0.84	1.55	2.32	3.92	0.81	0.38	0.74



Alt Model-Shift Uniqueness Test

007101676-06, P = 10.404876 Days, E = 126.917665 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.77	2.52	2.38	2.17	4.92	2.39	0.88	-1.60	-1.40	0.14	0.34	0.78	-1.96	0.49	0.75



Stellar Parameters For KIC 007101676

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7677^{+241}_{-295}	$4.076^{+0.170}_{-0.170}$	$-0.280^{+0.200}_{-0.300}$	$1.892^{+0.533}_{-0.436}$	$1.551^{+0.214}_{-0.235}$	$0.323^{+0.301}_{-0.158}$
	+3%/-4%	+4%/-4%	+71%/-107%	+28%/-23%	+14%/-15%	+93%/-49%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007101676-06 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-824±136	$8.37^{+8.58}_{-5.69}$	1974^{+155}_{-145}	6258^{+7270}_{-1630}	70^{+636}_{-53}
Alt.	-389±154	$8.40^{+8.26}_{-5.80}$	1981^{+148}_{-144}	5232^{+4785}_{-1326}	34^{+314}_{-26}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

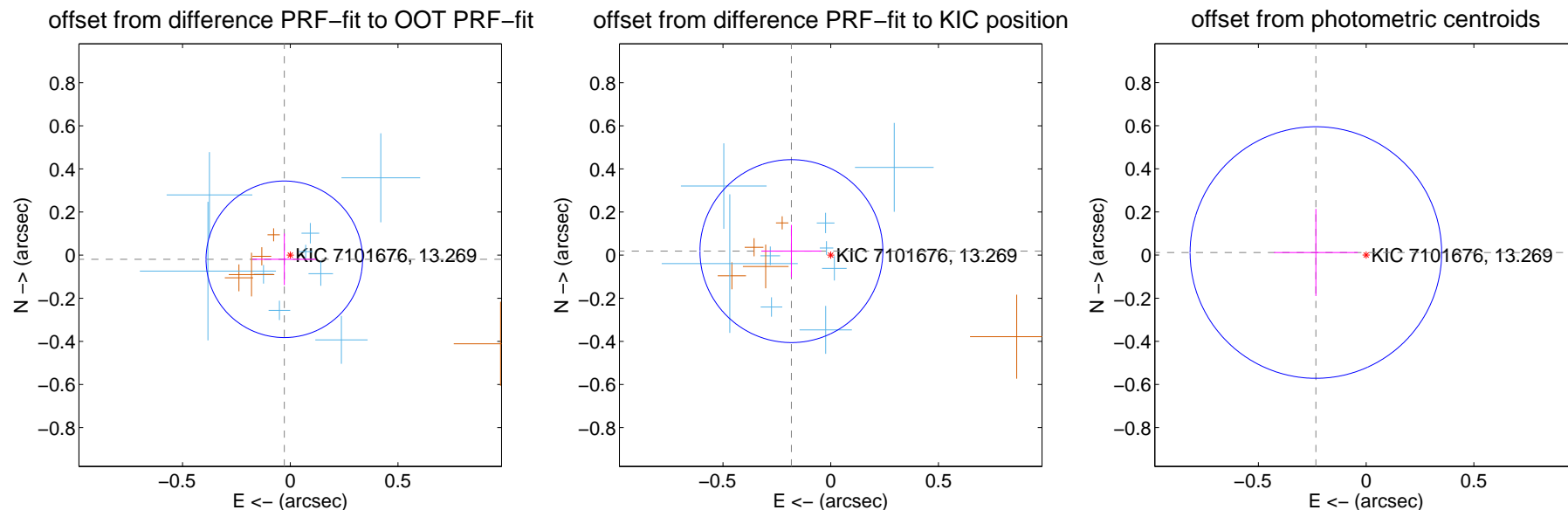
DV Centroid Data

Supplemental centroid analysis for 007101676-06. Kepler magnitude: 13.27. Transit SNR 3.30

There are 9 quarters with good PRF difference image offsets

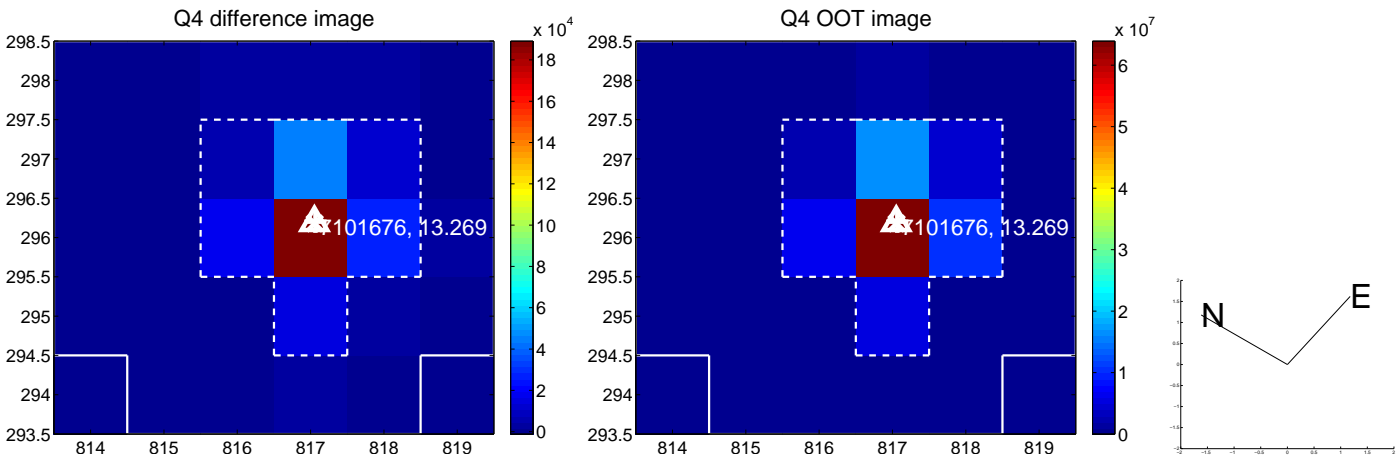
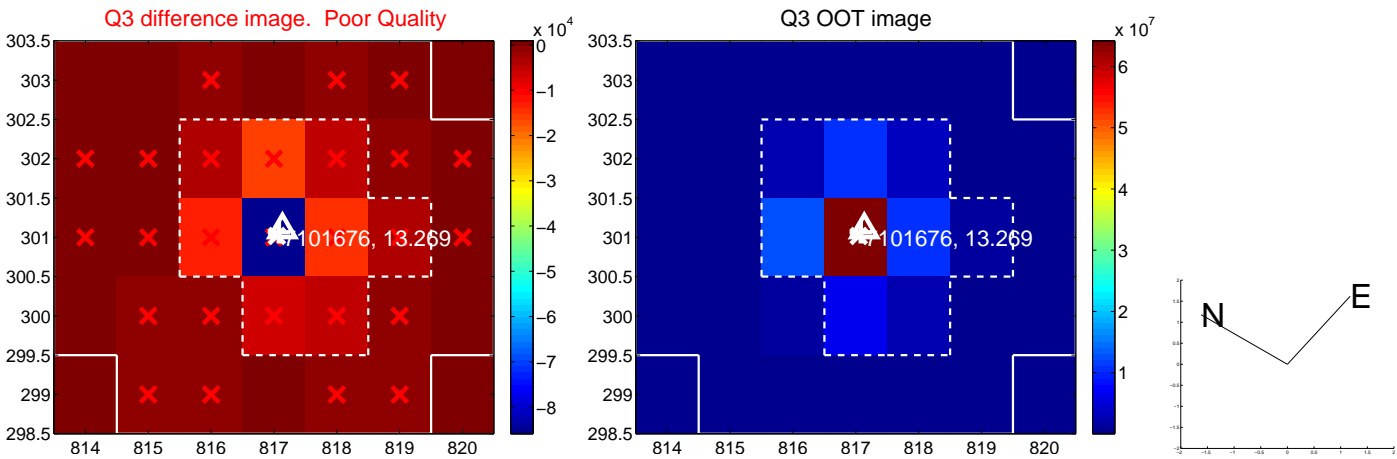
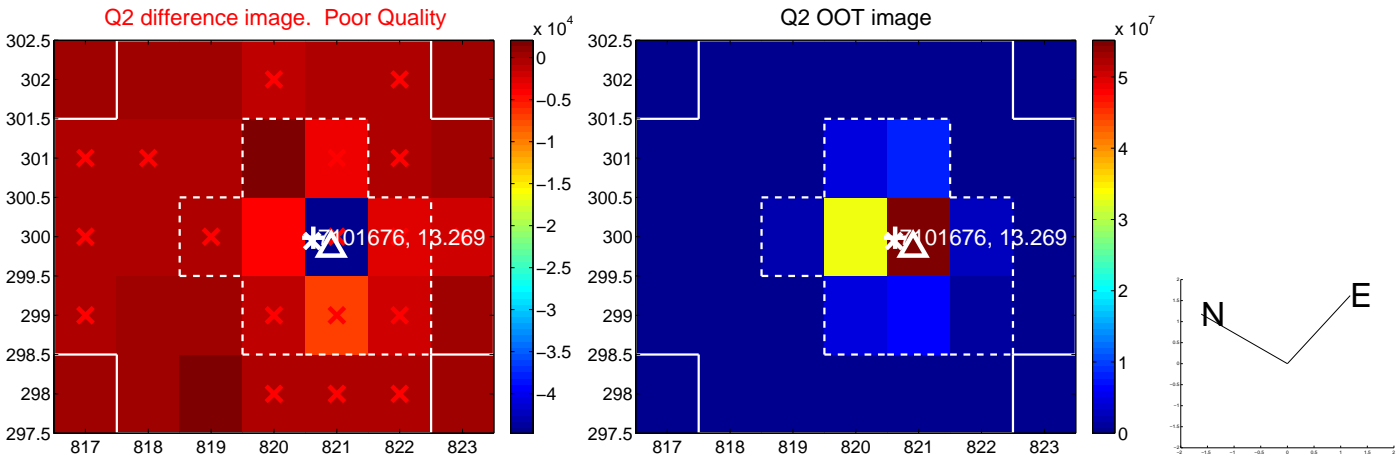
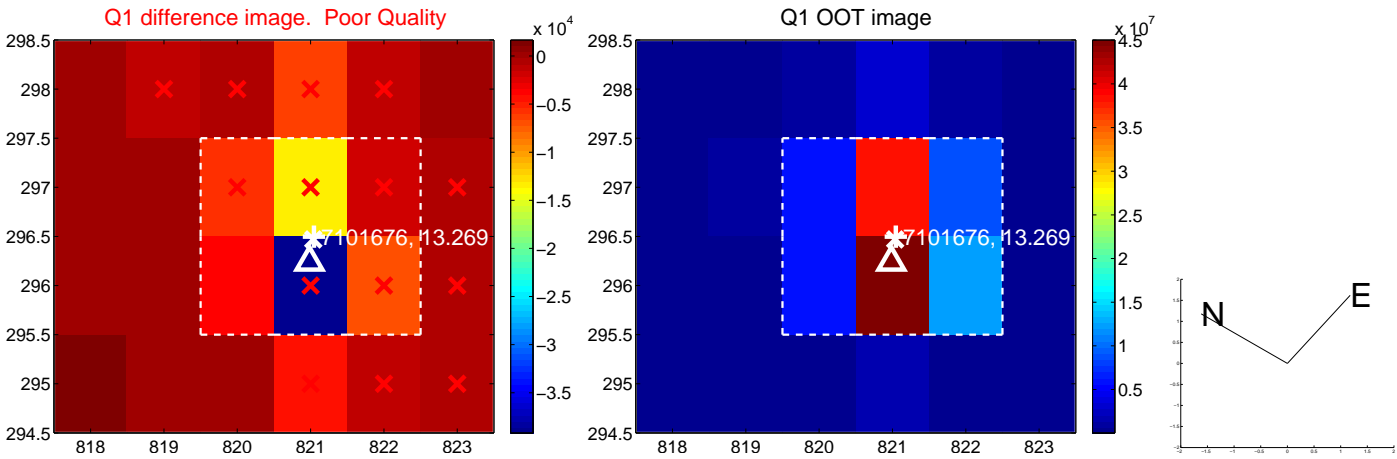
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.034 ± 0.121	0.28	0.028 ± 0.148	-0.019 ± 0.120
PRF-fit source offset from KIC position	0.183 ± 0.141	1.30	0.182 ± 0.139	0.019 ± 0.122
photometric centroid source offset	0.23 ± 0.19	1.20	0.23 ± 0.19	0.01 ± 0.20

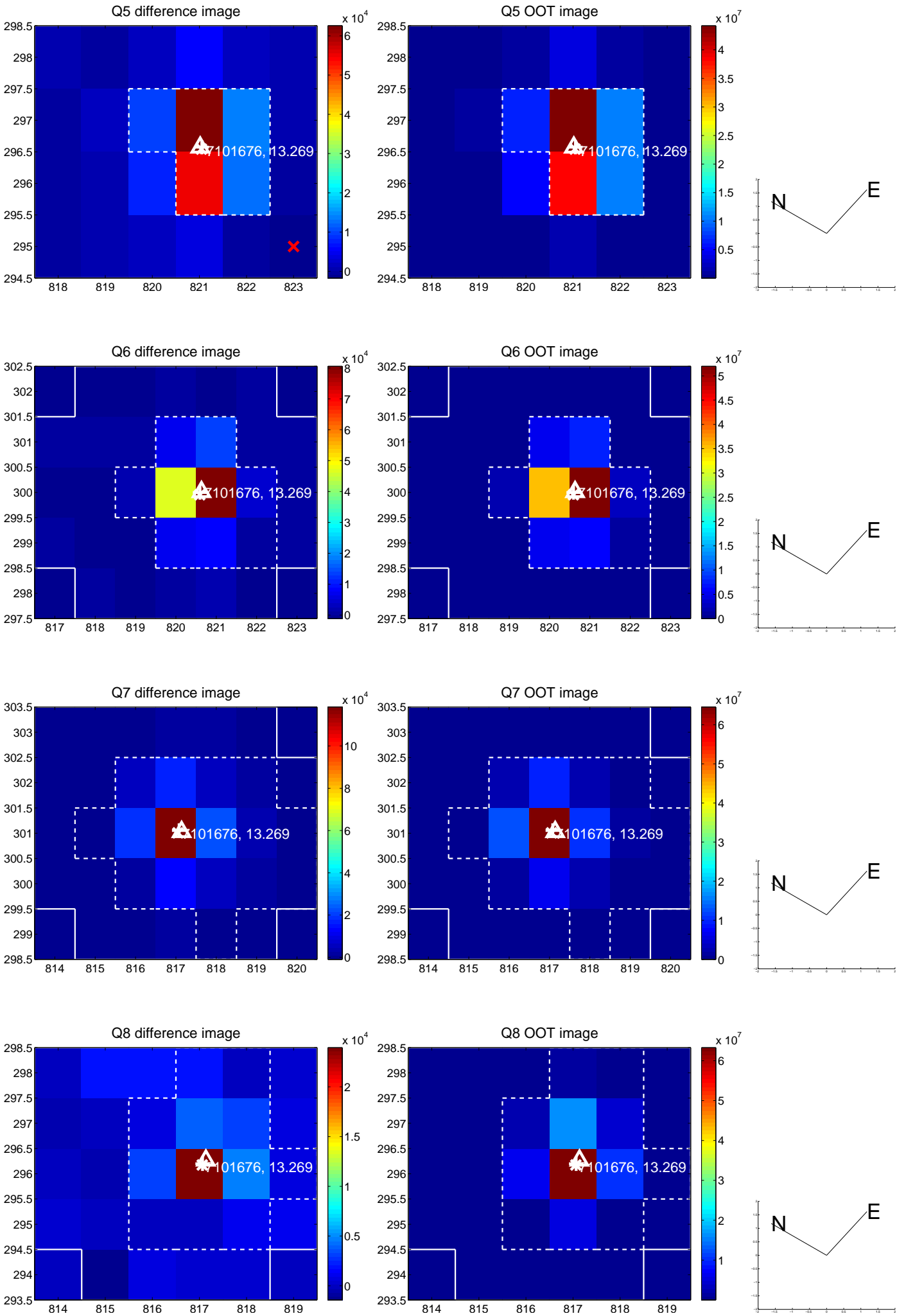


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

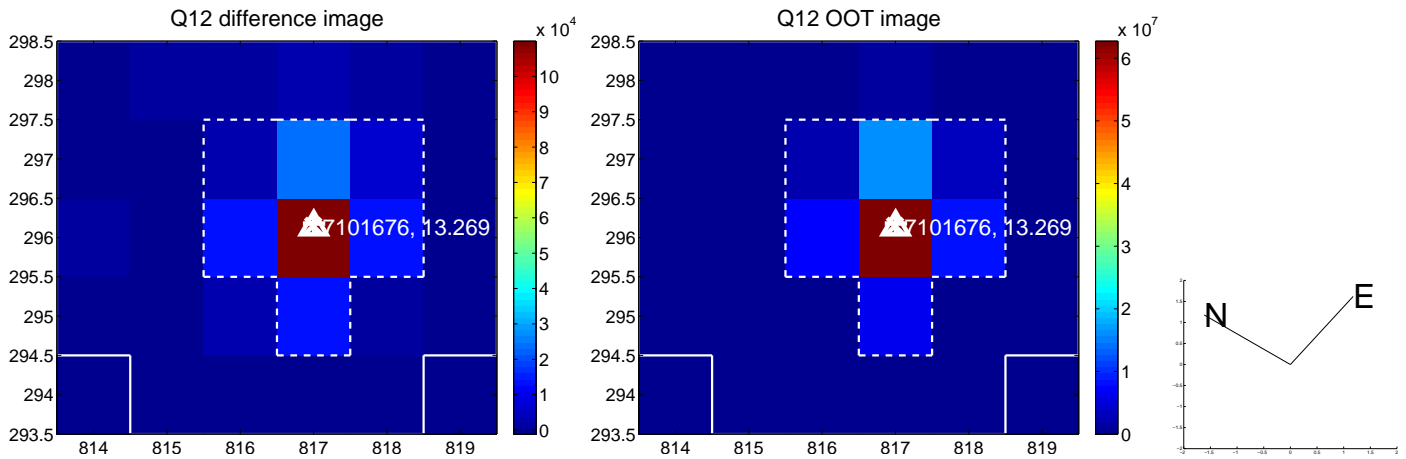
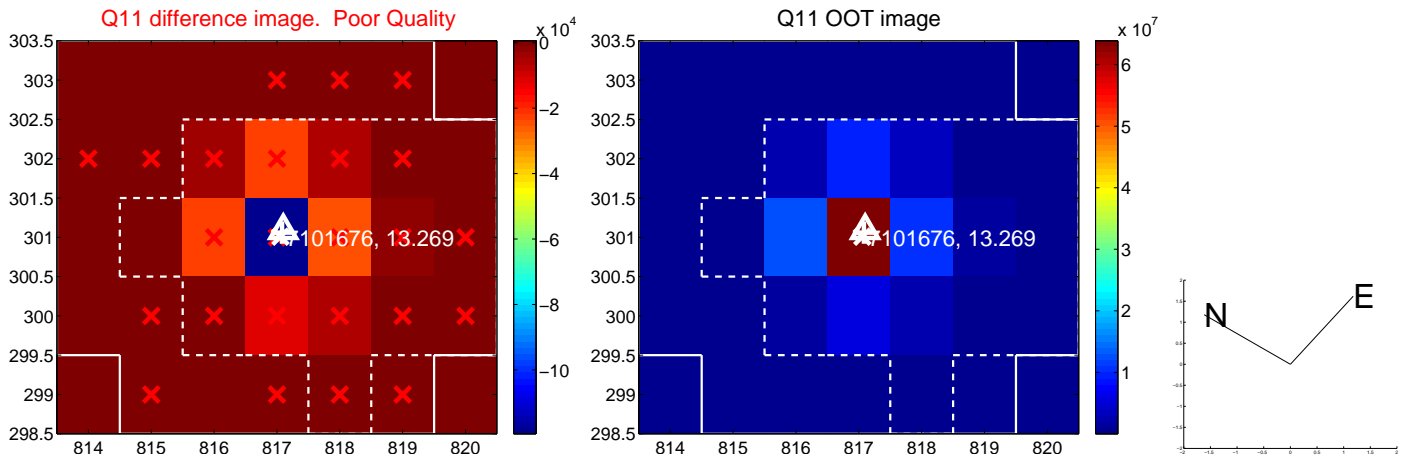
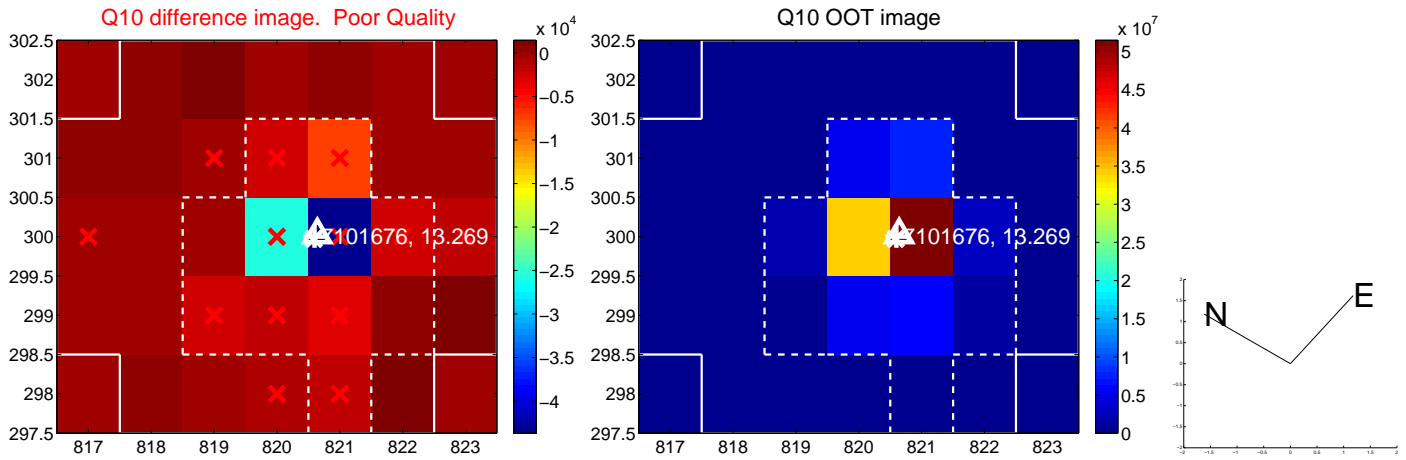
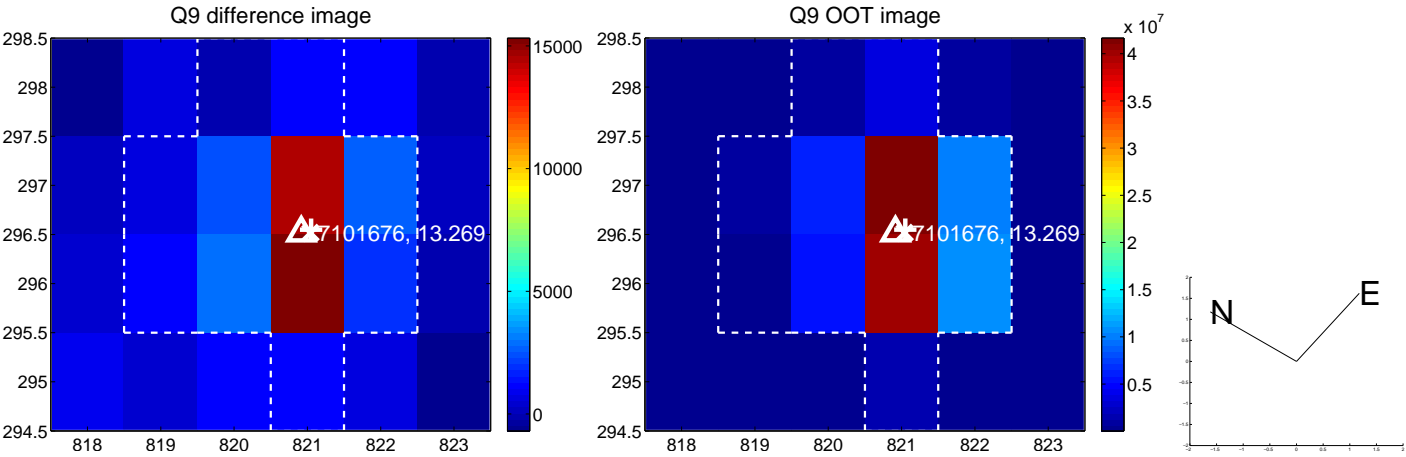
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



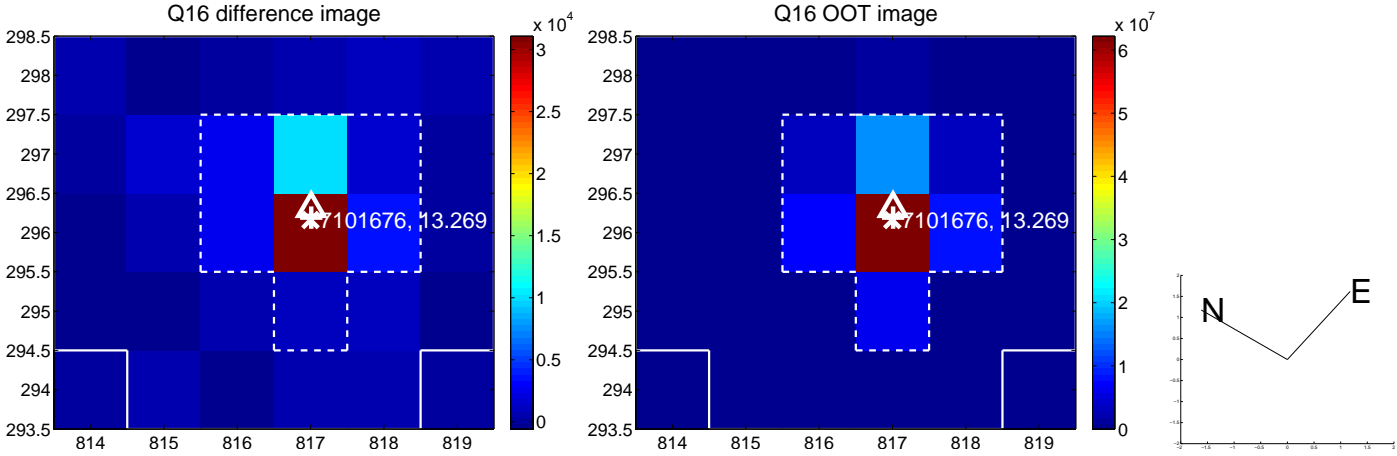
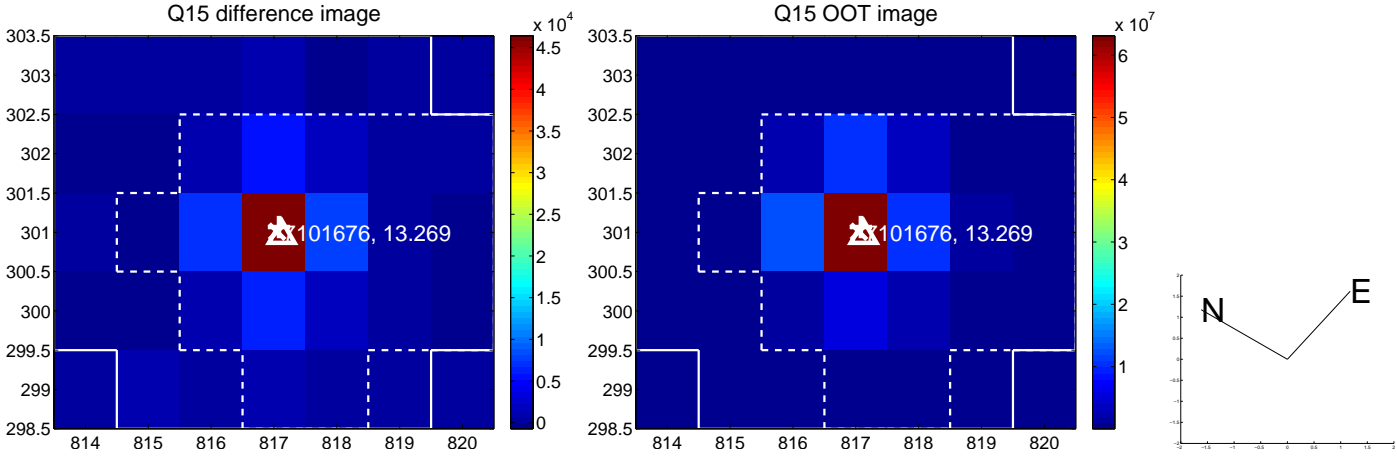
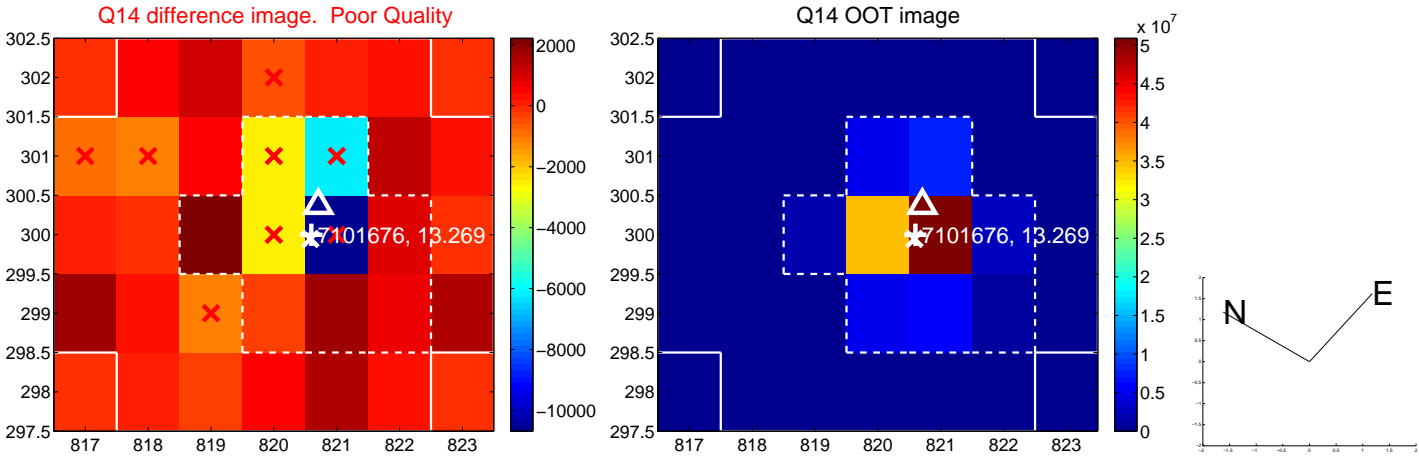
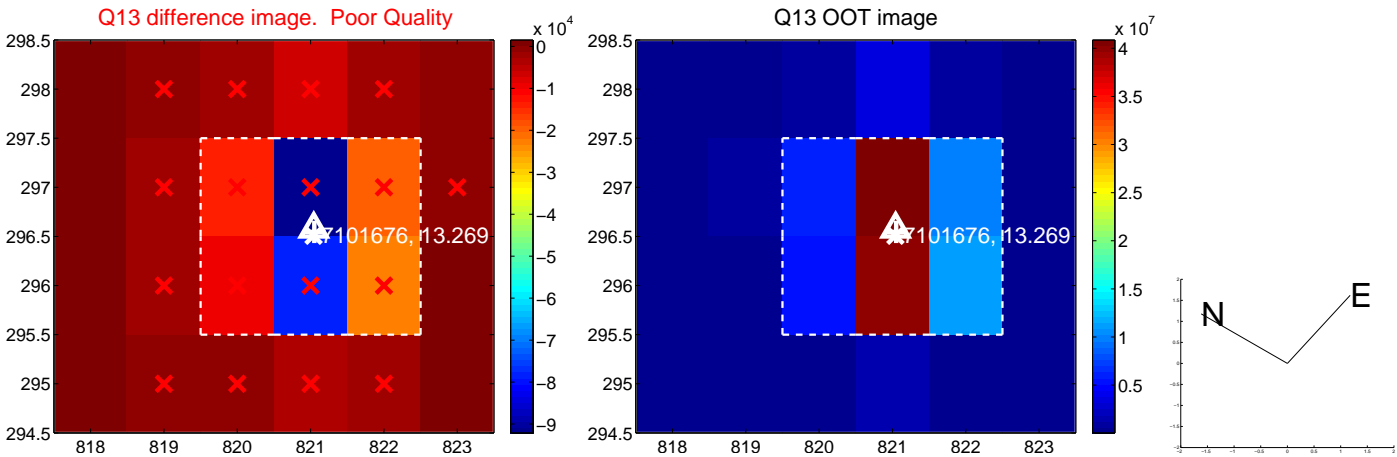
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



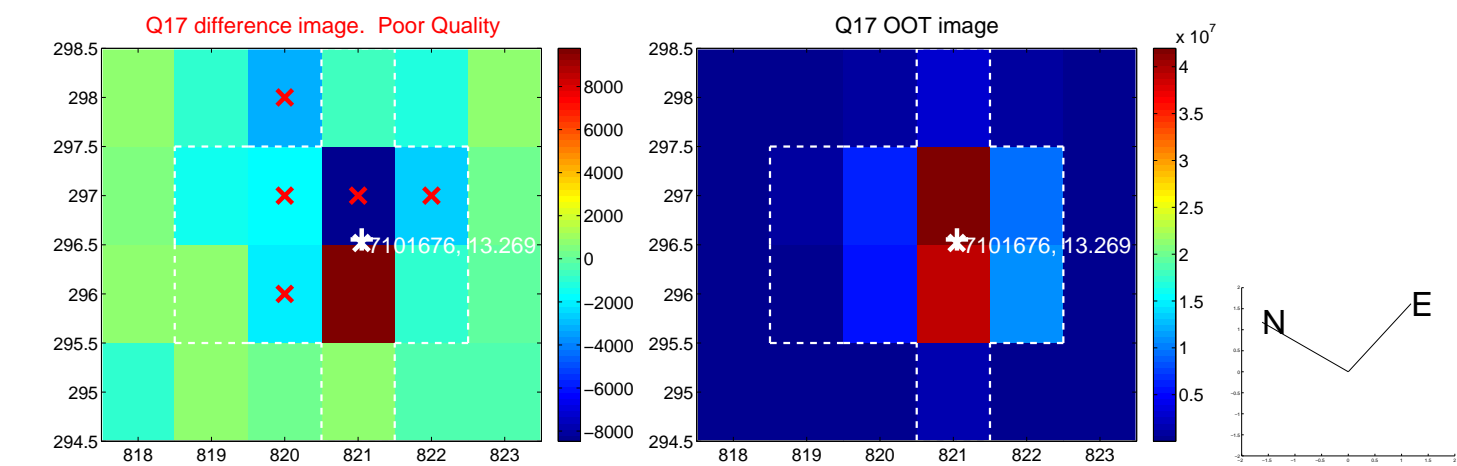
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



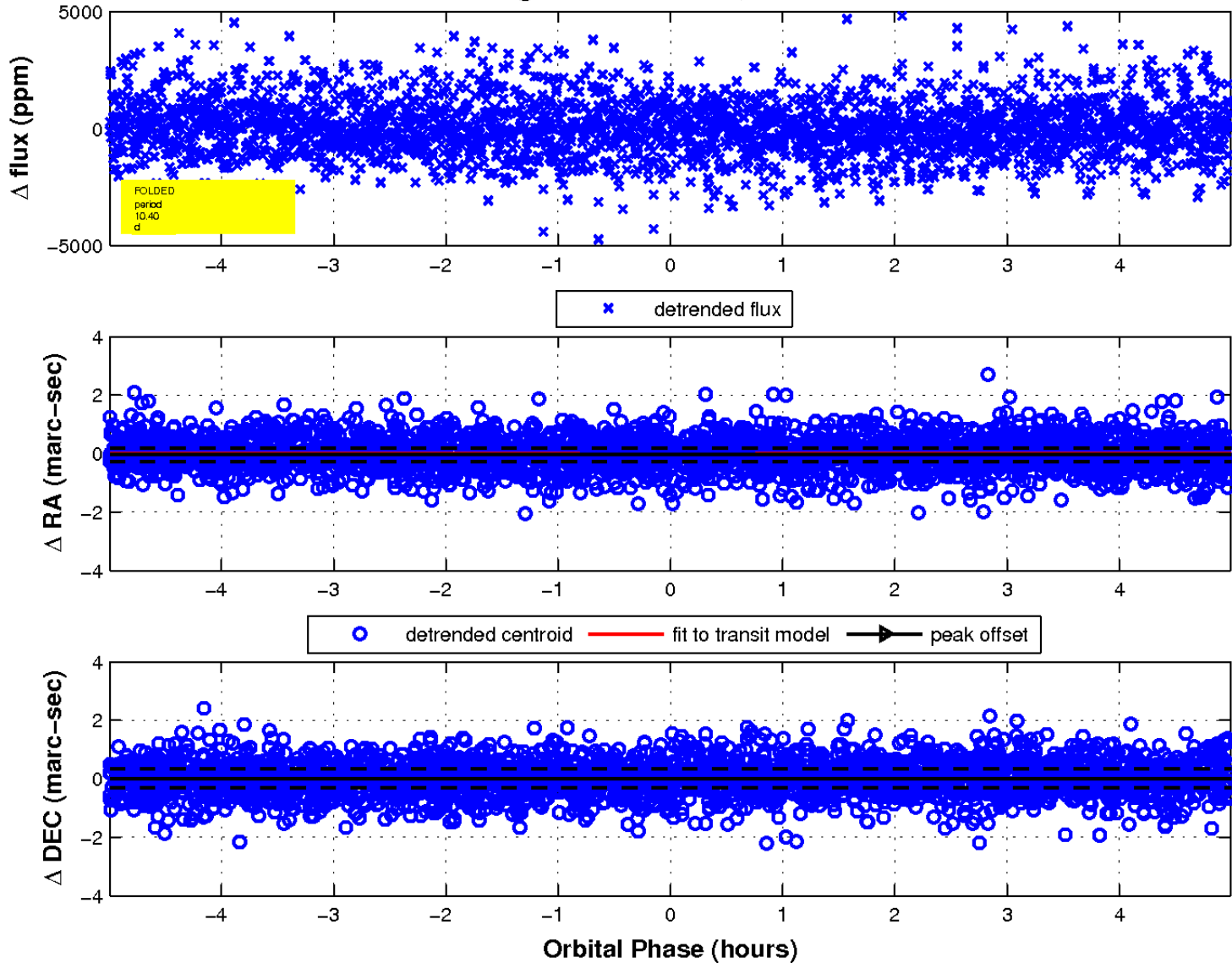
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

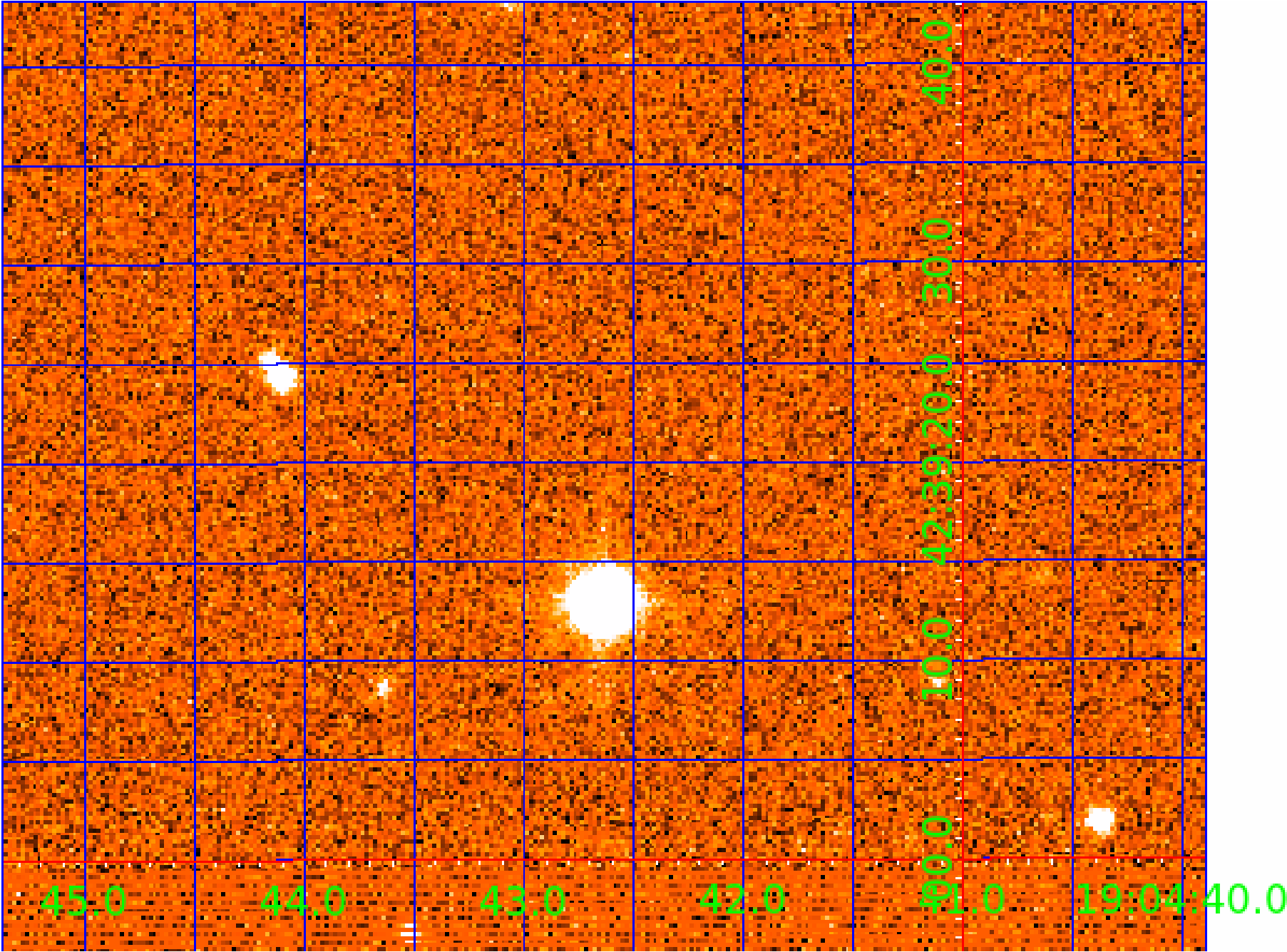


fluxWeightedCentroids, Planet 6 of 8



UKIRT Image

Declination



KIC 007101676

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007101676-01	OBS	No	0.695716	131.547106	18.1	2.521	10.4	2.1	1.89	7677	0.94	35131.68
007101676-02	OBS	No	0.695735	131.812000	53.3	2.442	10.9	5.0	1.89	7677	1.61	35130.38
007101676-03	OBS	No	233.138654	198.680511	2592.4	10.039	9.1	10.3	1.89	7677	9.91	15.09
007101676-04	OBS	No	17.371501	139.599201	1537.6	2.515	9.0	7.9	1.89	7677	7.82	481.38
007101676-06	OBS	No	10.404243	137.342248	478.1	1.665	8.5	3.3	1.89	7677	4.53	953.51
007101676-07	OBS	No	27.841844	138.968056	1896.7	3.762	8.7	8.2	1.89	7677	11.80	256.65
007101676-08	OBS	No	55.355036	156.375783	358.6	2.000	8.9	-1.0	1.89	7677	3.63	102.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007101676-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
007101676-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
007101676-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES
007101676-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007101676-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007101676-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
007101676-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

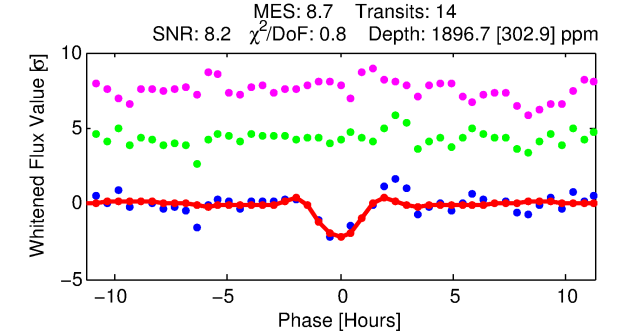
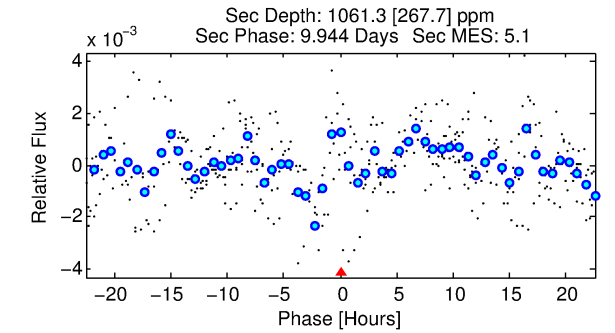
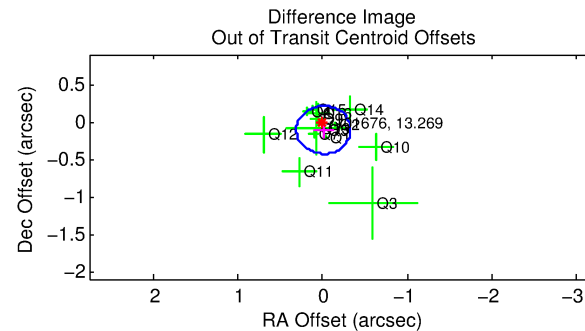
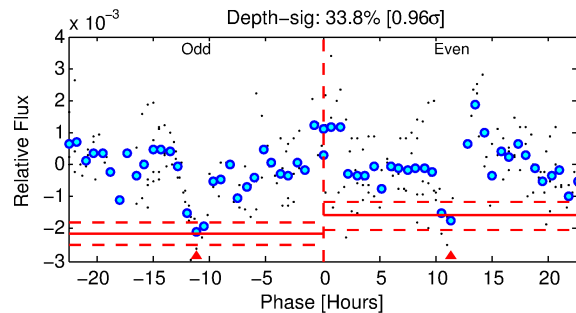
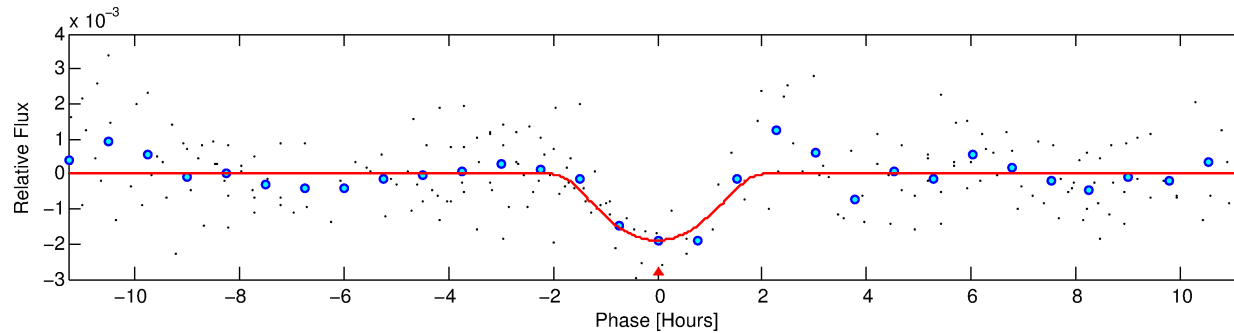
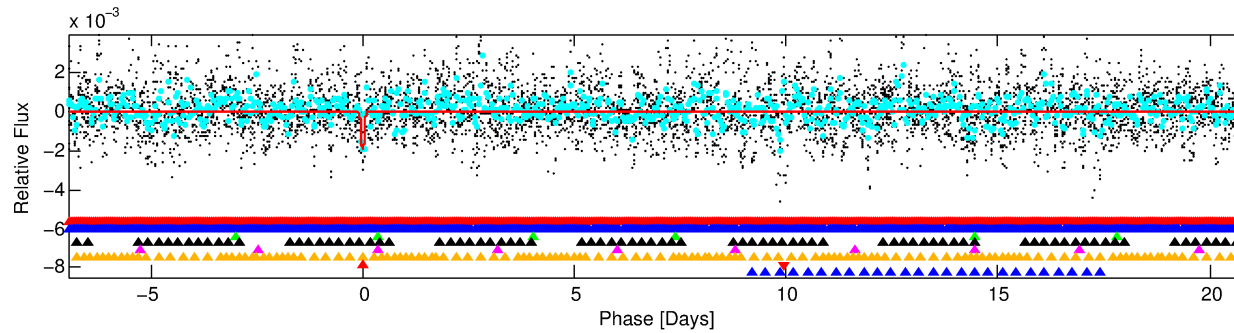
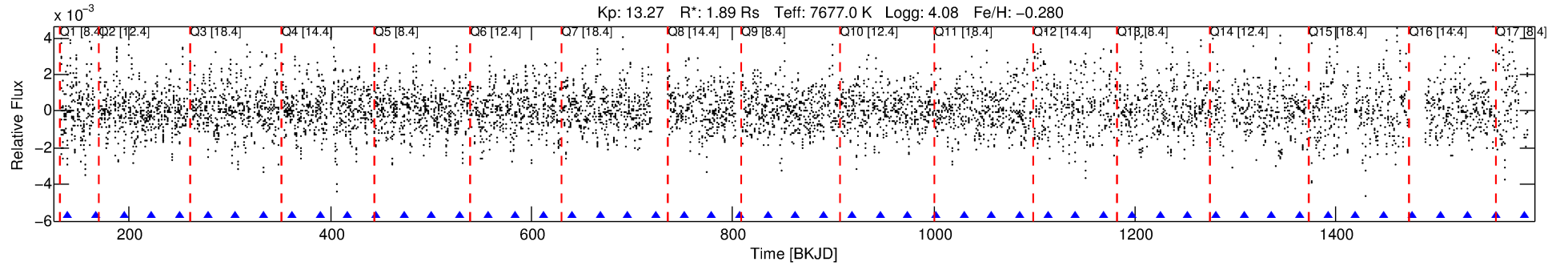
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007101676-07

No Significant Match Found

DV One-Page Summary

KIC: 7101676 Candidate: 7 of 8 Period: 27.842 d



DV Fit Results:

Period = 27.84184 [0.00038] d
Epoch = 138.9681 [0.0093] BKJD
Rp/R* = 0.0572 [0.0531]
a/R* = 23.46 [8.72]
b = 0.97 [0.11]
Seff = 256.65 [91.46]
Teq = 1021 [91] K
Rp = 11.80 [11.46] Re
a = 0.2083 [0.0476] AU
Ag = 181.97 [346.36] [0.52 σ]
Teffp = 5796 [2727] K [1.75 σ]

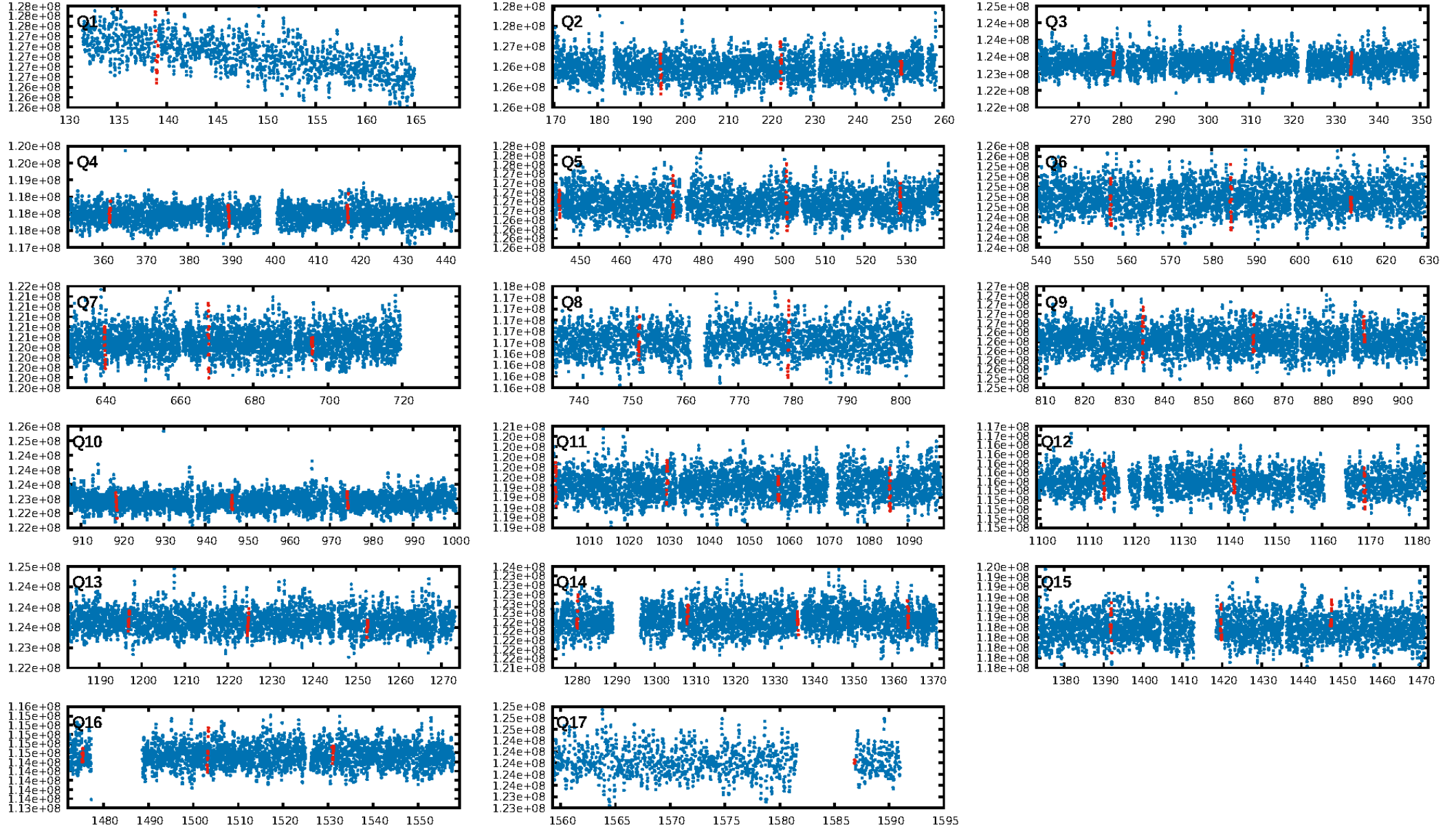
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [55.54 σ]
LongPeriod-sig: 100.0% [155.00 σ]
ModelChiSquare2-sig: 69.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [13/13]
GhostDiagnostic-chr: 0.6912
Centroid-sig: 9.0%
Centroid-so: 0.255 arcsec [3.73 σ]
OotOffset-rm: 0.109 arcsec [1.02 σ]
KicOffset-rm: 0.135 arcsec [1.32 σ]
OotOffset-st: 3/4/3/4 [14]
KicOffset-st: 3/4/3/4 [14]
DiffImageQuality-fgm: 0.43 [6/14]
DiffImageOverlap-fno: 0.00 [0/16]

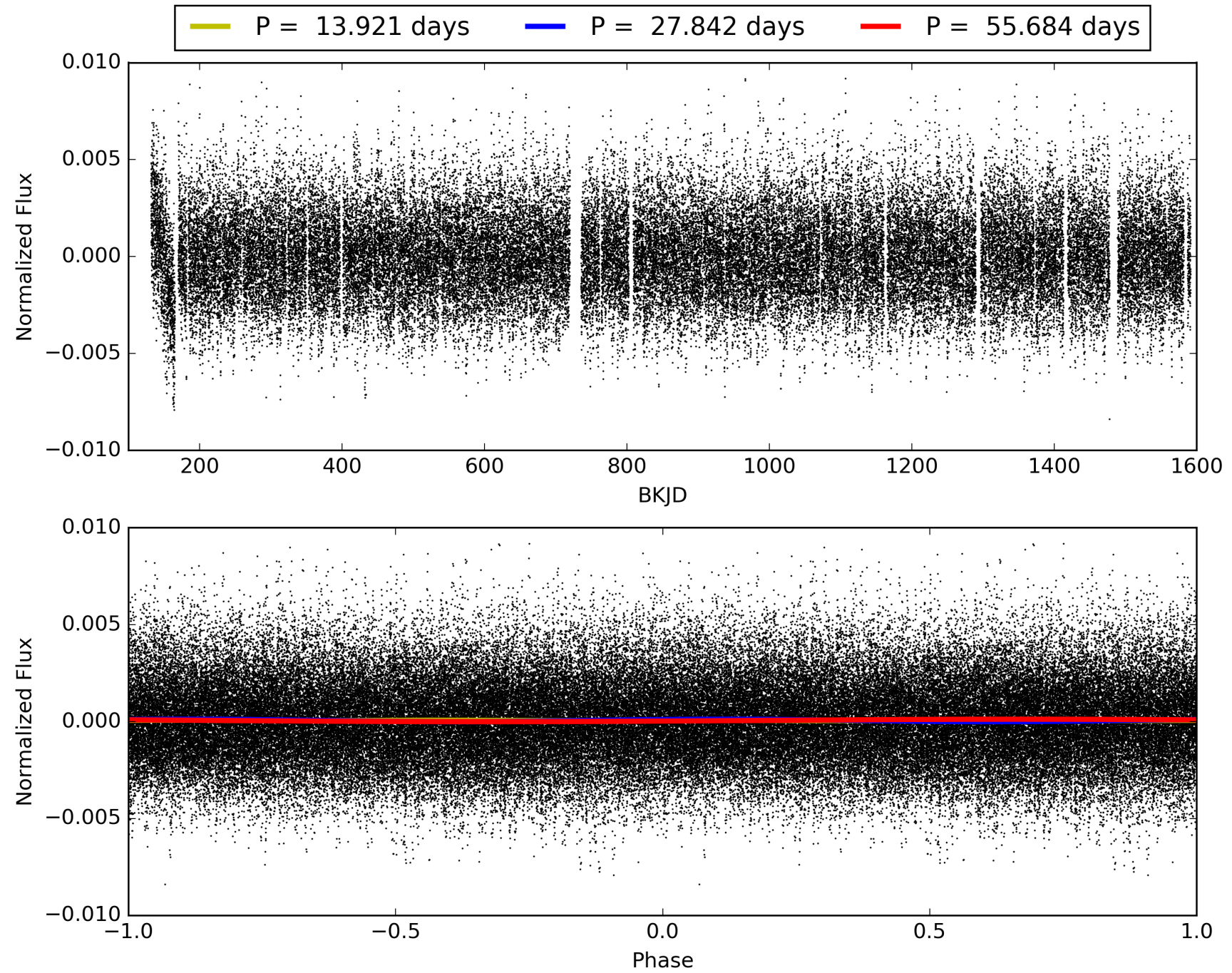
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:59:31 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007101676-07, PDC Light Curves

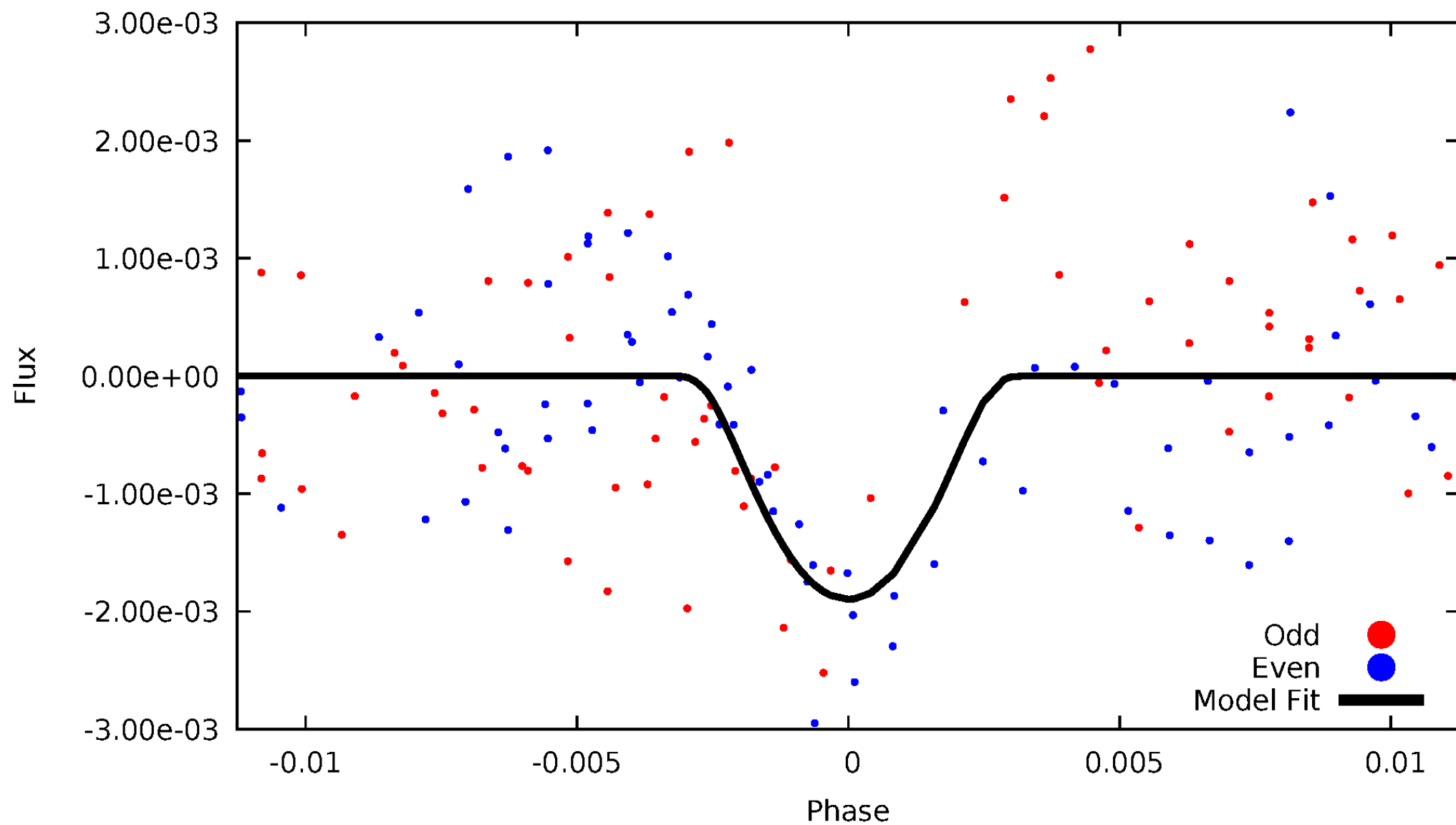


TCE 007101676-07



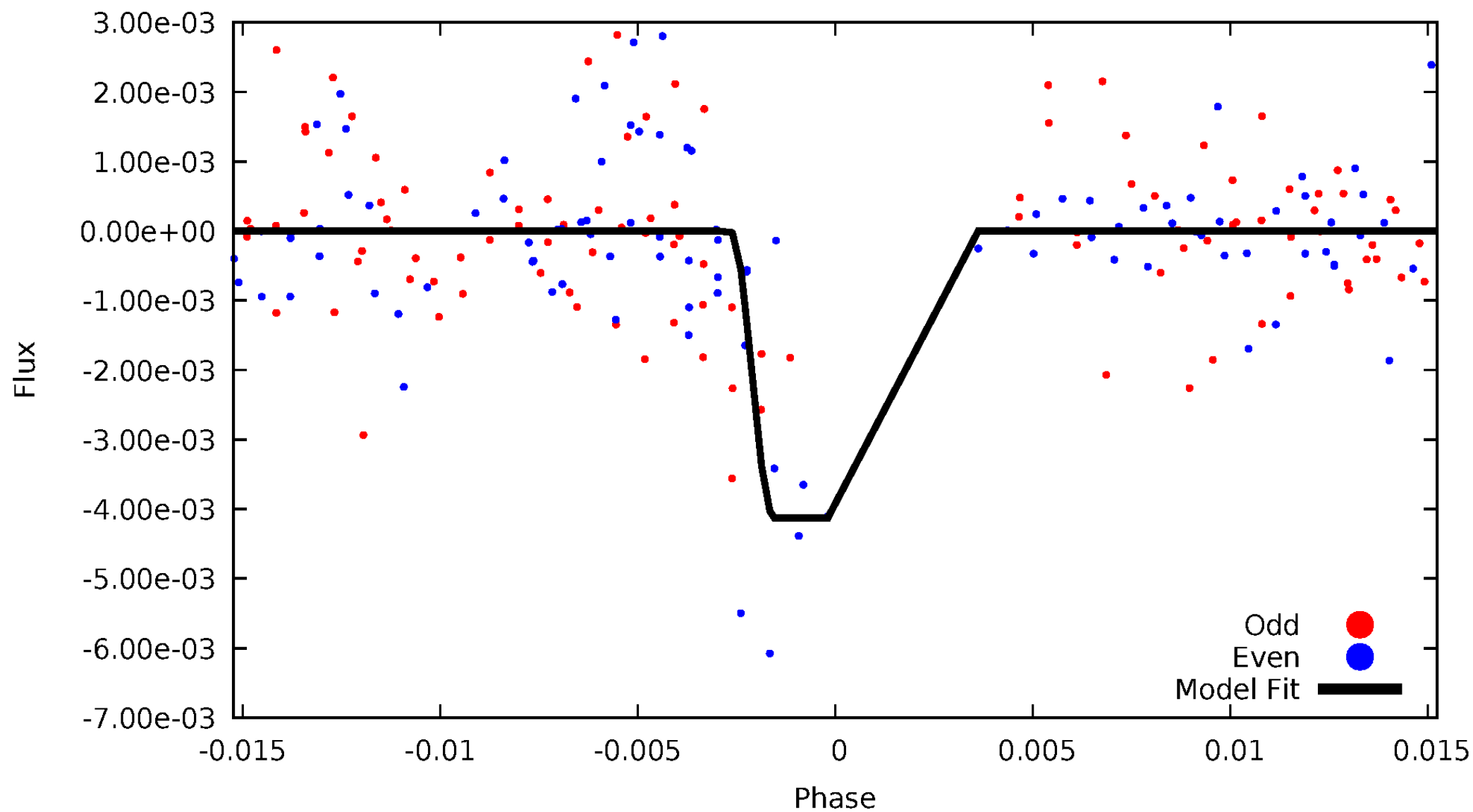
DV Odd/Even

TCE 007101676-07



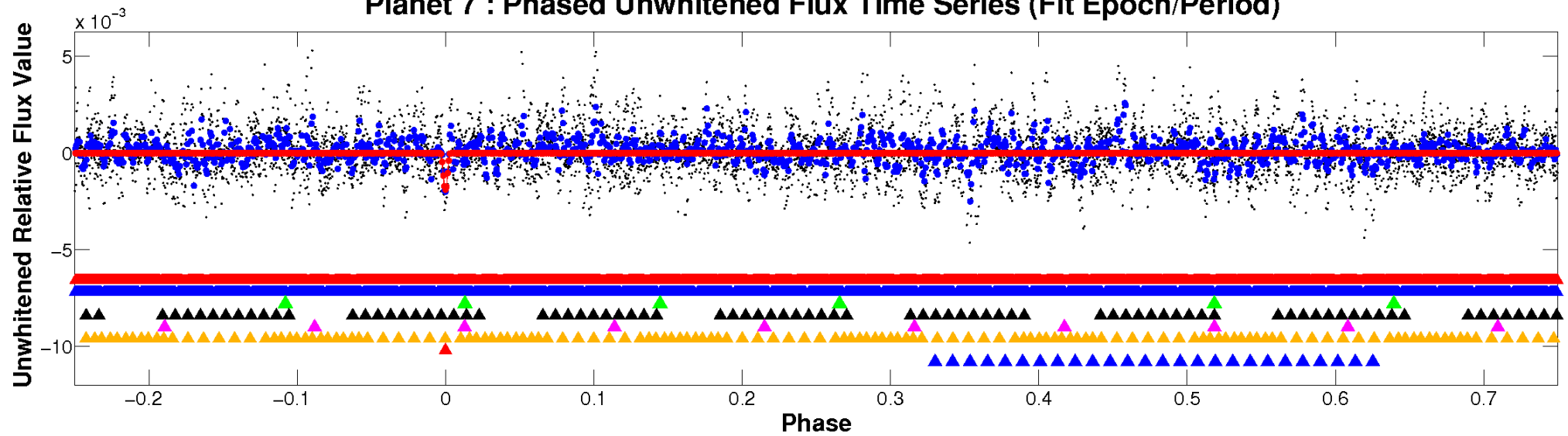
ALT Odd/Even

TCE 007101676-07

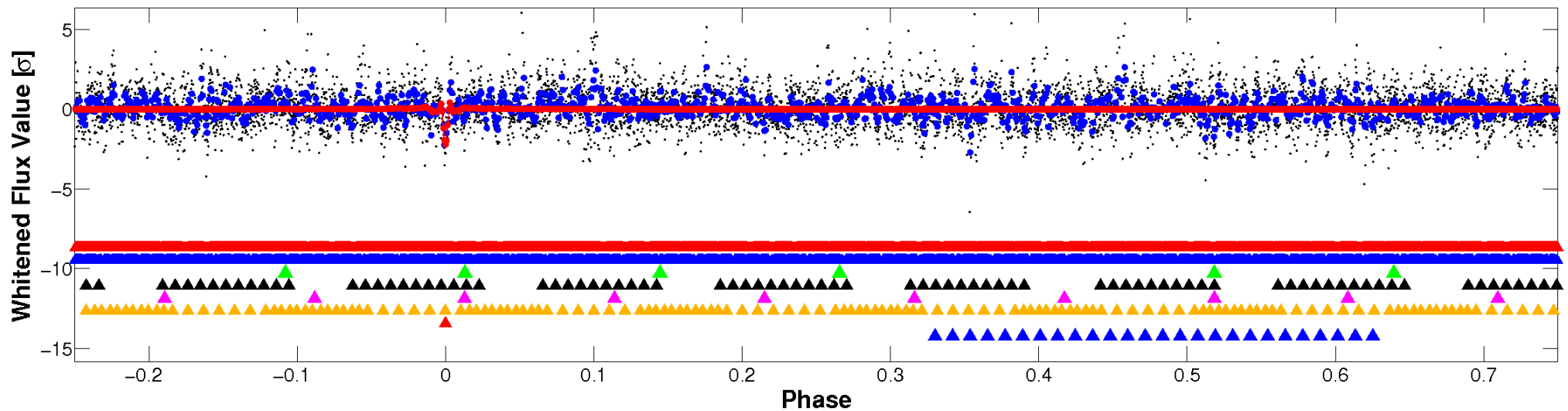


Non-Whitened Vs. Whitened Light Curve

Planet 7 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

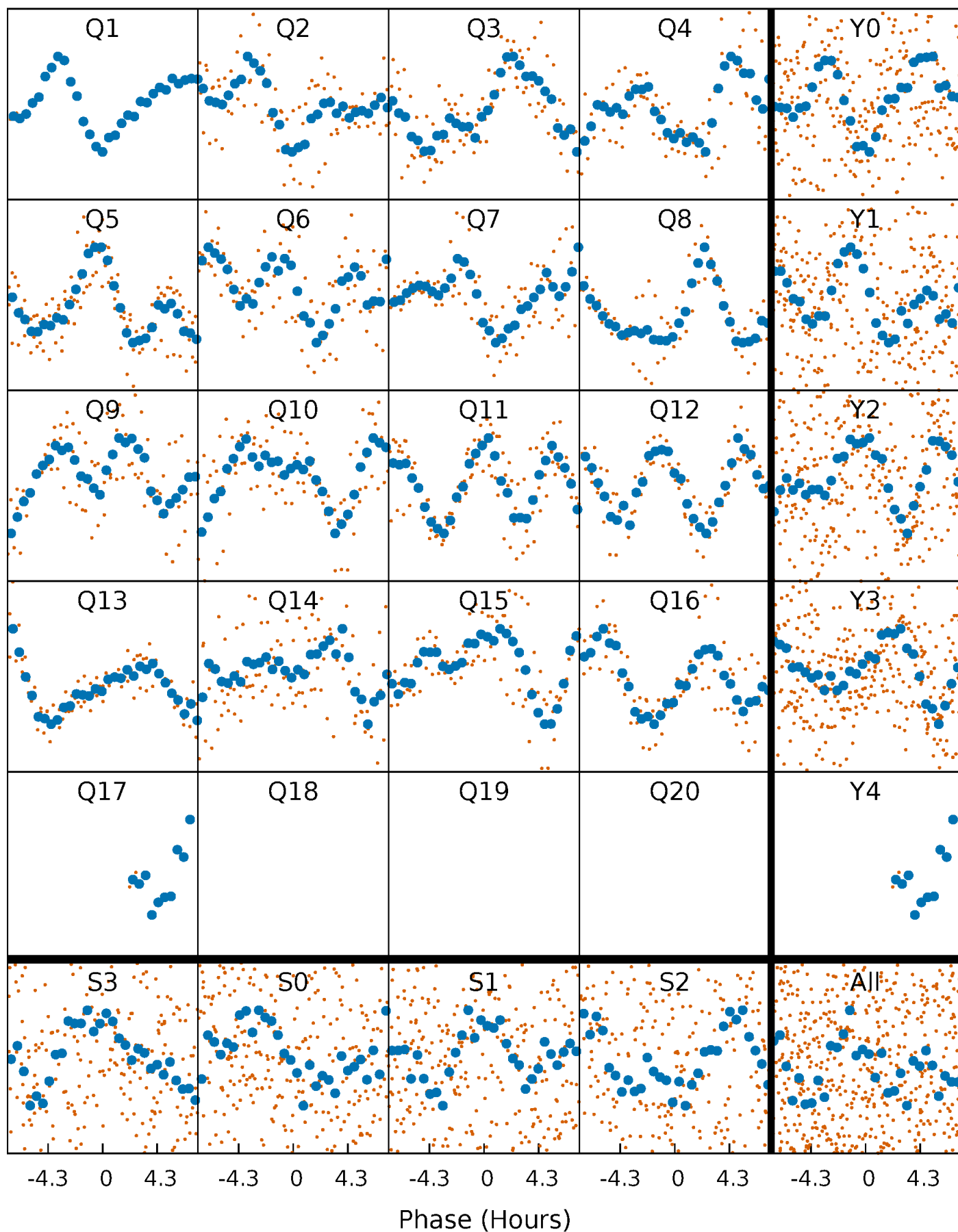


Planet 7 : Phased Whitened Flux Time Series (Fit Epoch/Period)



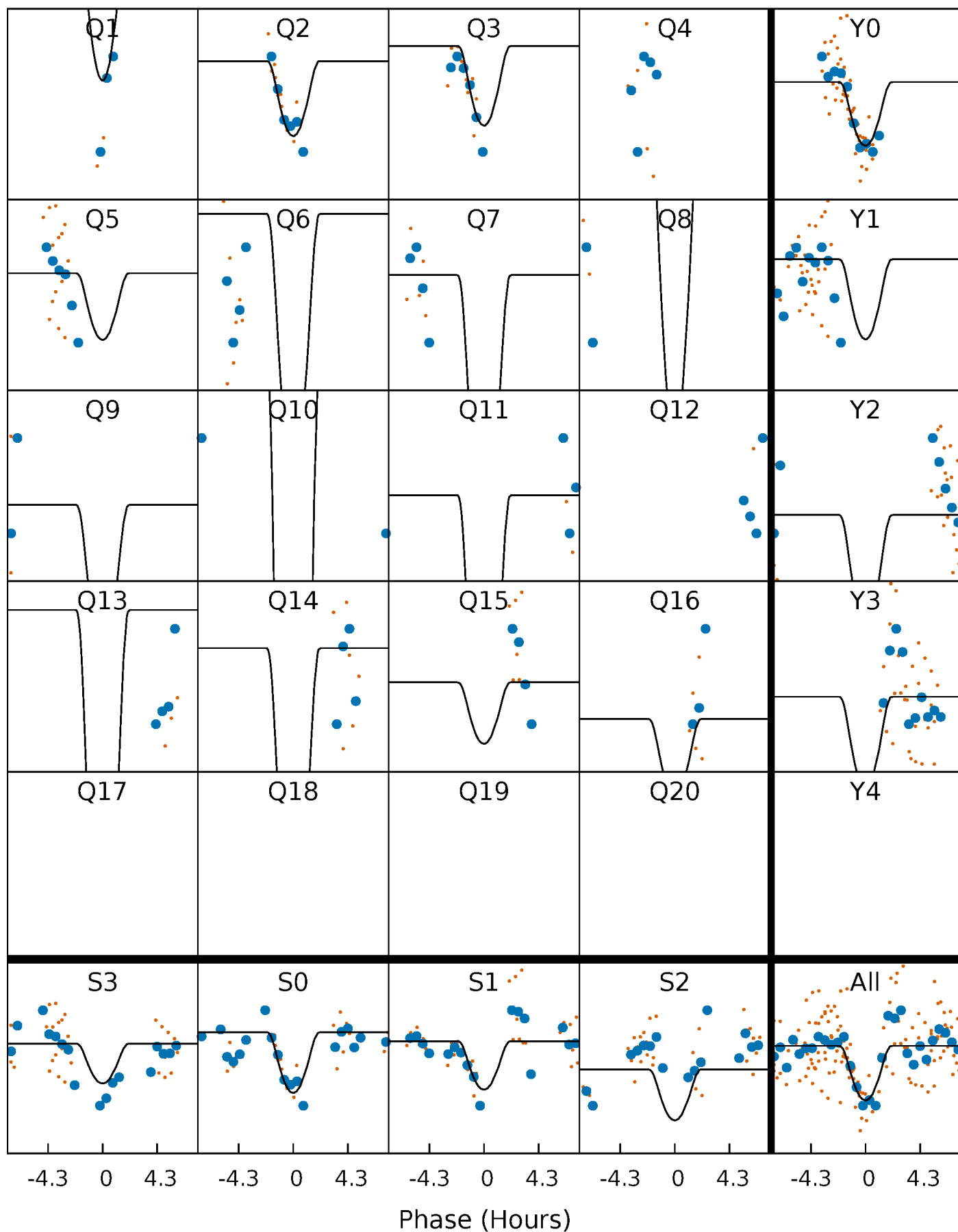
PDC Quarter-Phased Transit Curves

TCE 007101676-07 P= 27.841844 Days $T_0=138.968056$ (BKJD)



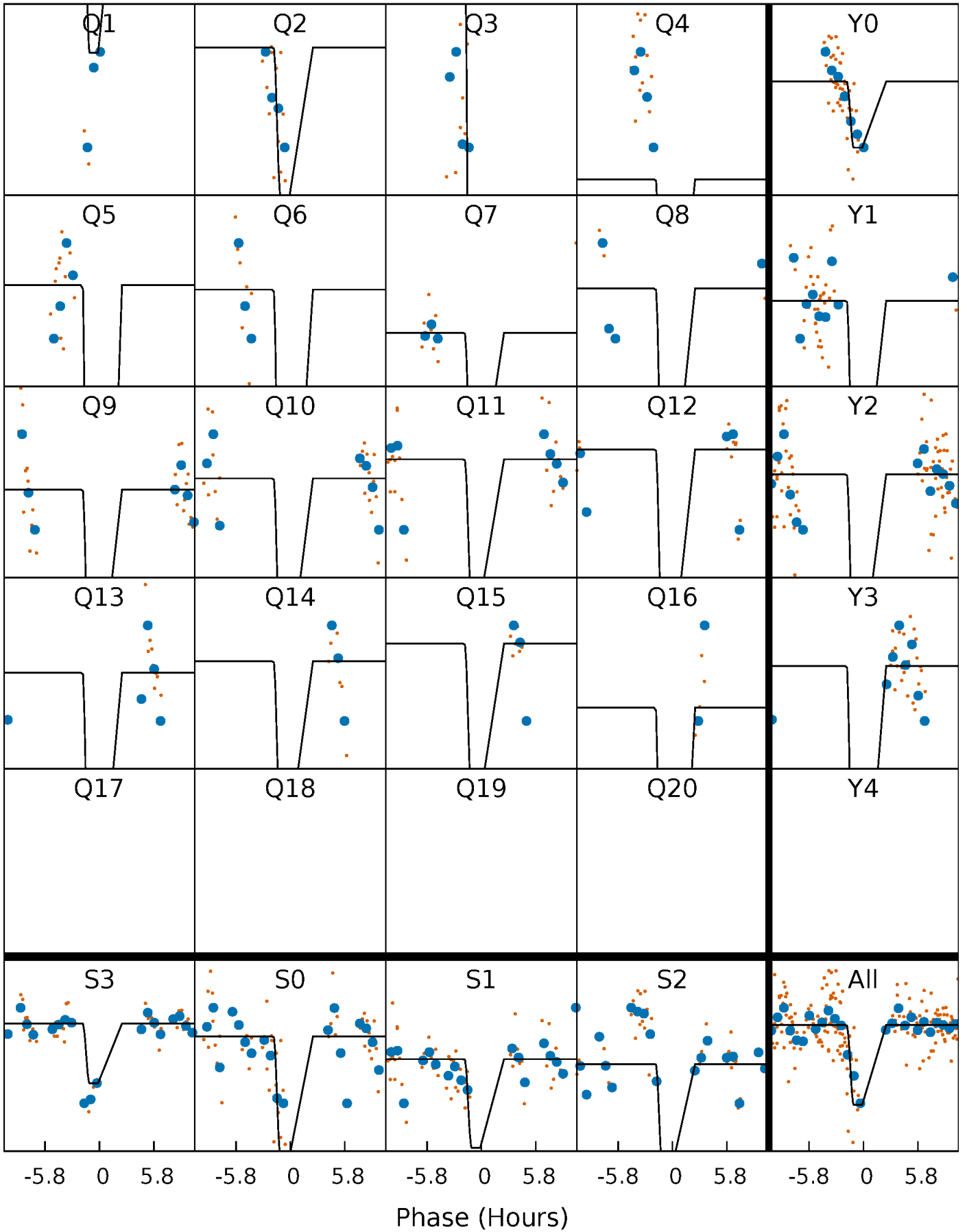
DV Quarter-Phased Transit Curves

TCE 007101676-07 P= 27.841844 Days $T_0=138.968056$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

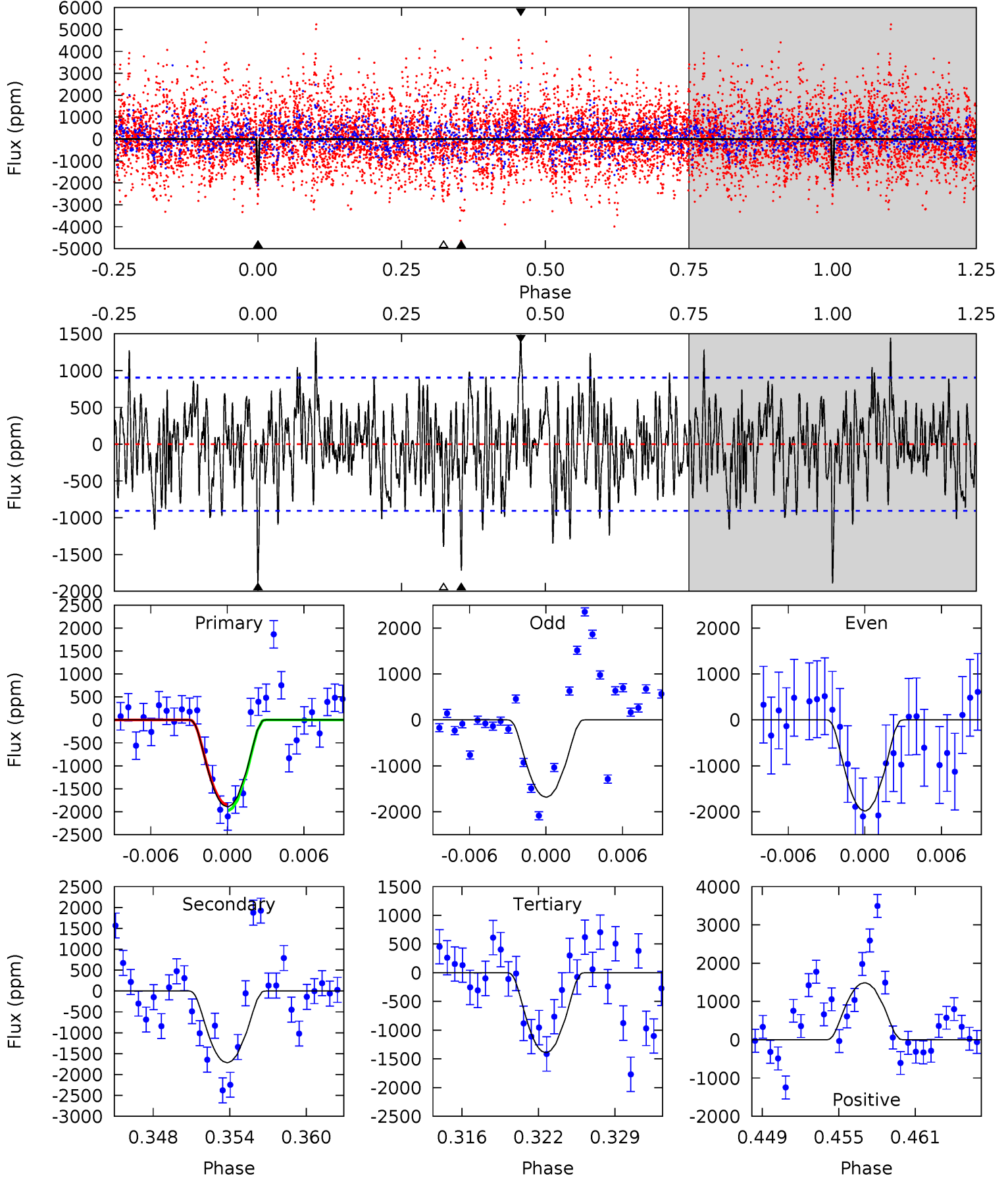
TCE 007101676-07 $P = 27.839812$ Days $T_0 = 139.017449$ (BKJD)



DV Model-Shift Uniqueness Test

007101676-07, P = 27.841844 Days, E = 111.126212 Days

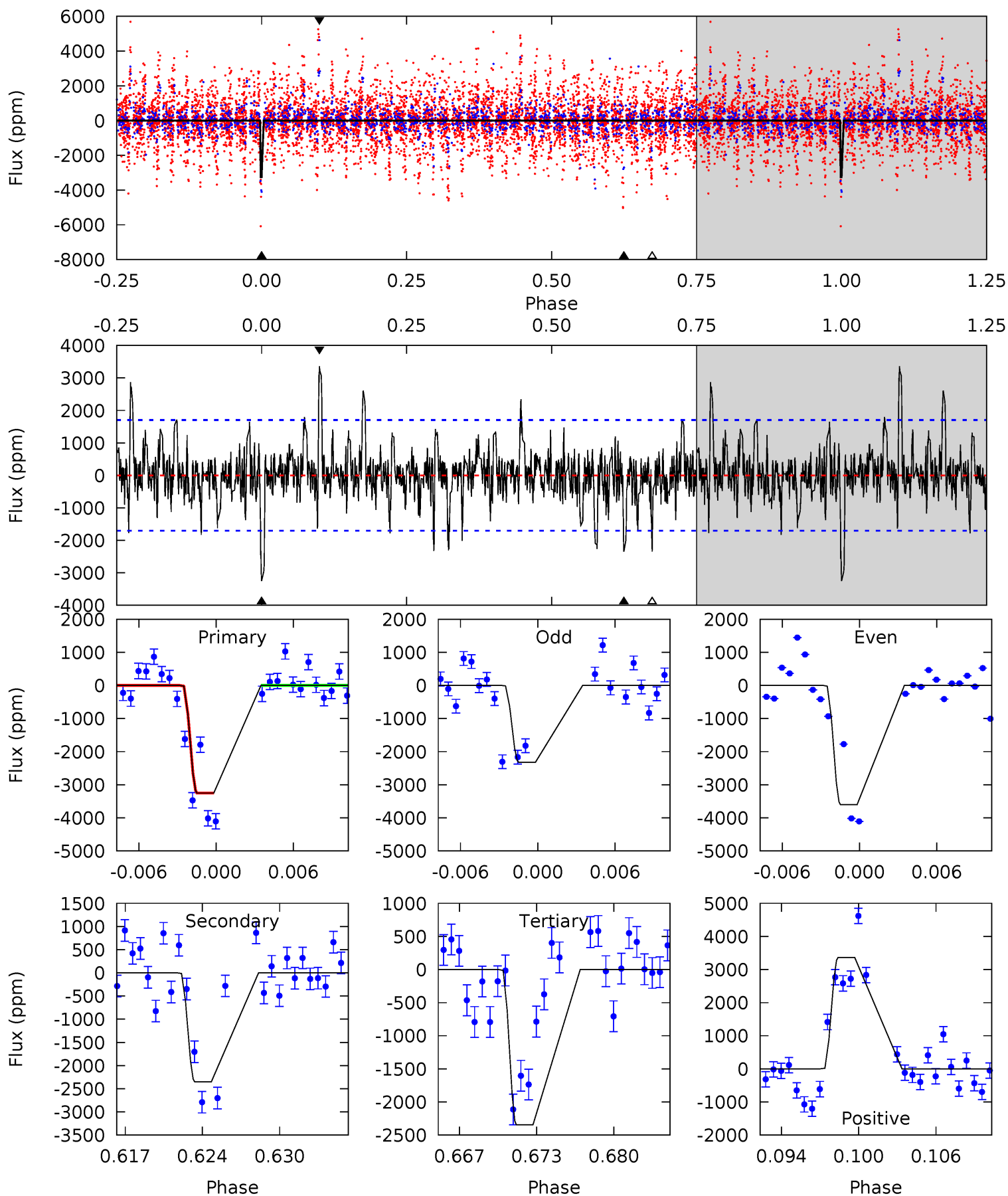
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.7	9.68	7.86	8.39	5.11	2.73	2.53	2.82	2.29	1.83	1.29	0.84	0.22	0.44	0.31



Alt Model-Shift Uniqueness Test

007101676-07, P = 27.839812 Days, E = 111.177637 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.77	7.06	7.04	10.1	5.12	2.74	1.66	2.73	-0.33	0.02	-3.04	1.80	0	0.51	0



Stellar Parameters For KIC 007101676

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	M (M_{\odot})	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7677^{+241}_{-295}	$4.076^{+0.170}_{-0.170}$	$-0.280^{+0.200}_{-0.300}$	$1.892^{+0.533}_{-0.436}$	$1.551^{+0.214}_{-0.235}$	$0.323^{+0.301}_{-0.158}$
	+3%/-4%	+4%/-4%	+71%/-107%	+28%/-23%	+14%/-15%	+93%/-49%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007101676-07 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-1715 ± 177	$13.83^{+10.20}_{-8.51}$	1425^{+104}_{-97}	5835^{+4424}_{-1186}	211^{+1223}_{-141}
Alt.	-2349 ± 333	$14.60^{+11.61}_{-8.93}$	1431^{+108}_{-103}	6252^{+4676}_{-1413}	260^{+1441}_{-179}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

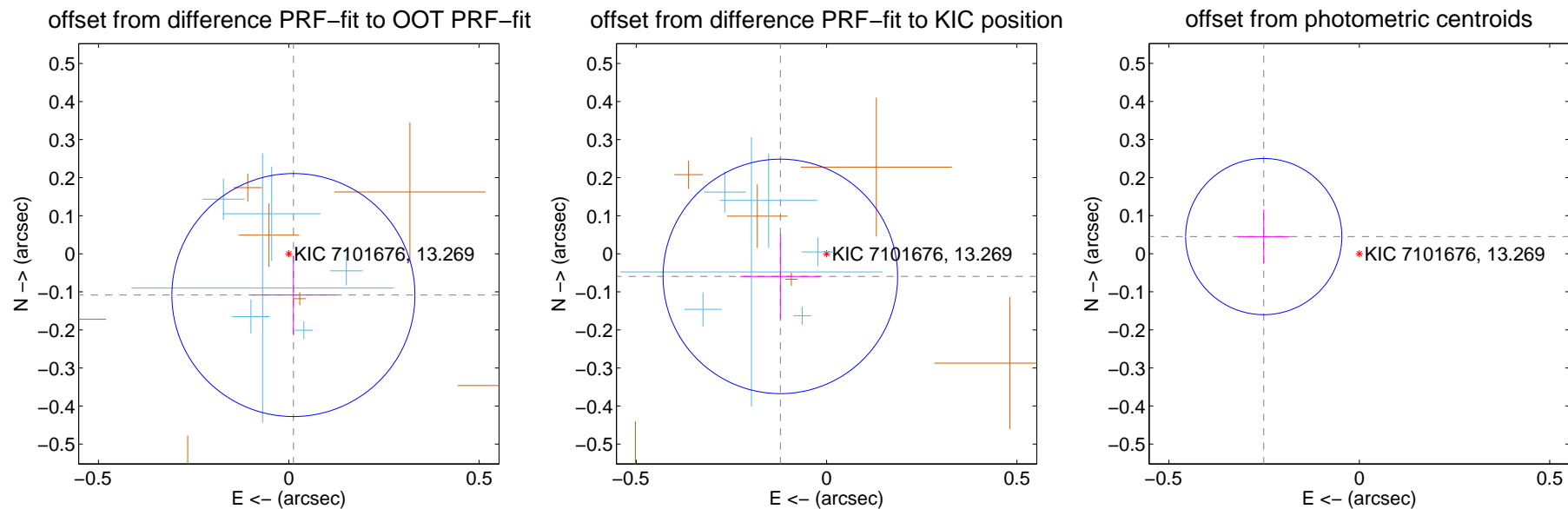
DV Centroid Data

Supplemental centroid analysis for 007101676-07. Kepler magnitude: 13.27. Transit SNR 8.21

There are 6 quarters with good PRF difference image offsets

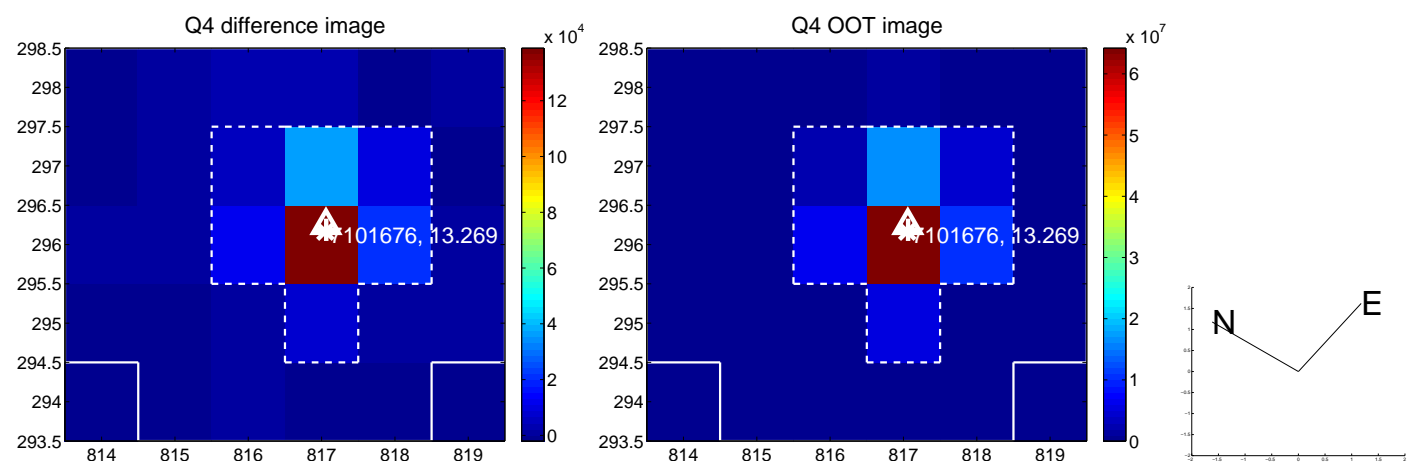
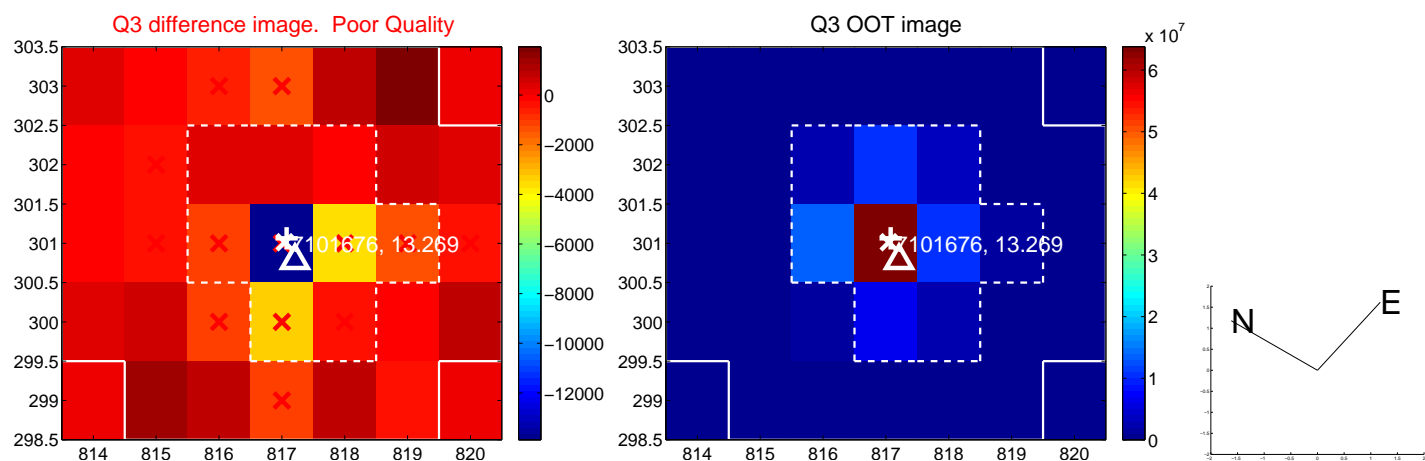
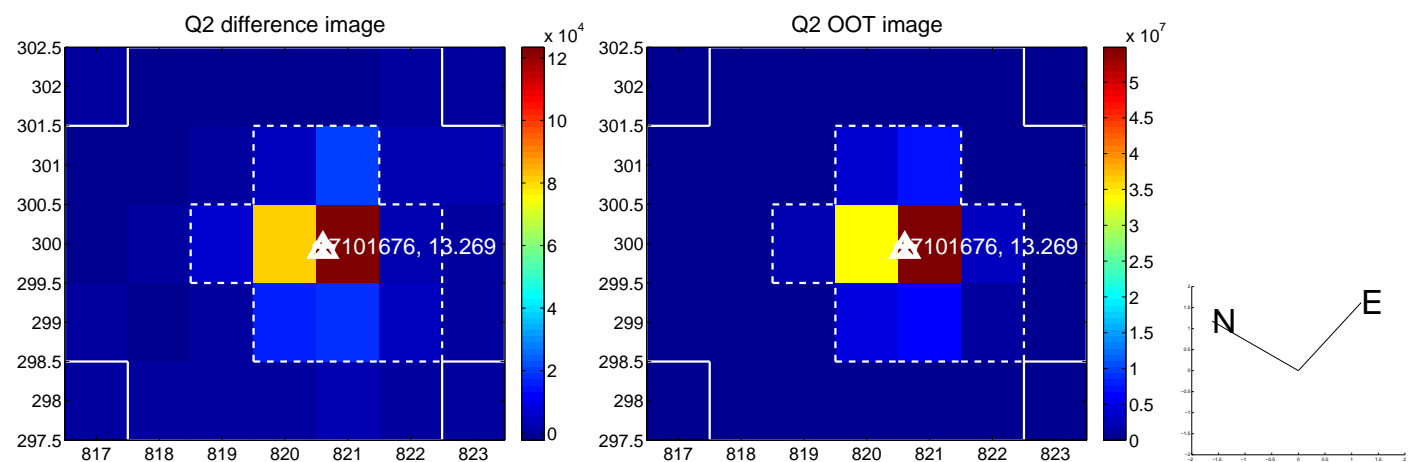
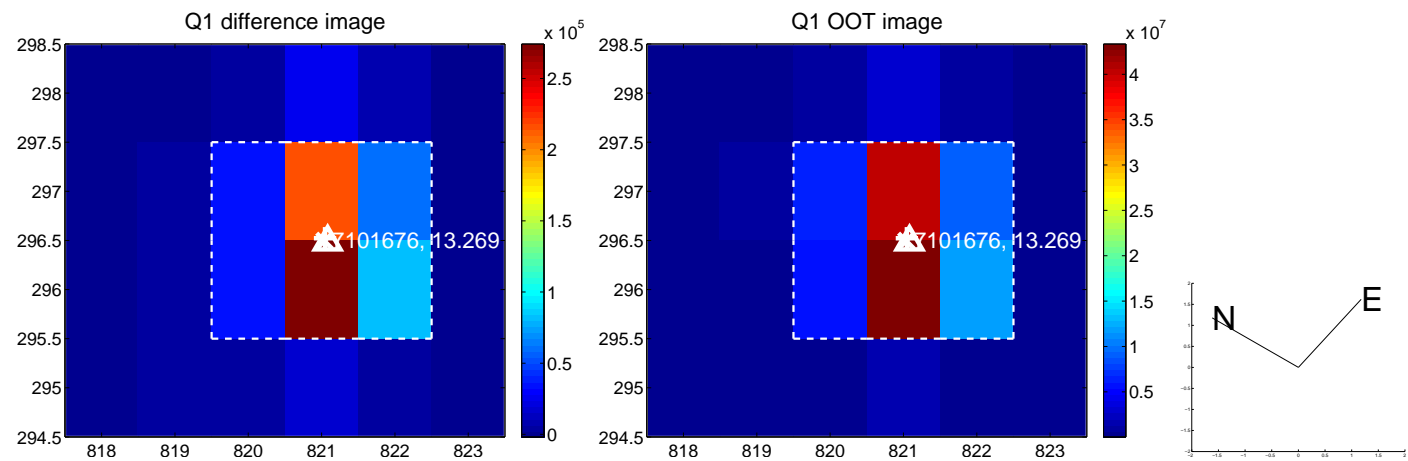
The direct PRF centroid is offset from the target star catalog position by about 0.11 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.109 ± 0.106	1.02	-0.012 ± 0.110	-0.108 ± 0.104
PRF-fit source offset from KIC position	0.135 ± 0.103	1.32	0.121 ± 0.105	-0.059 ± 0.112
photometric centroid source offset	0.25 ± 0.07	3.73	0.25 ± 0.07	0.05 ± 0.07

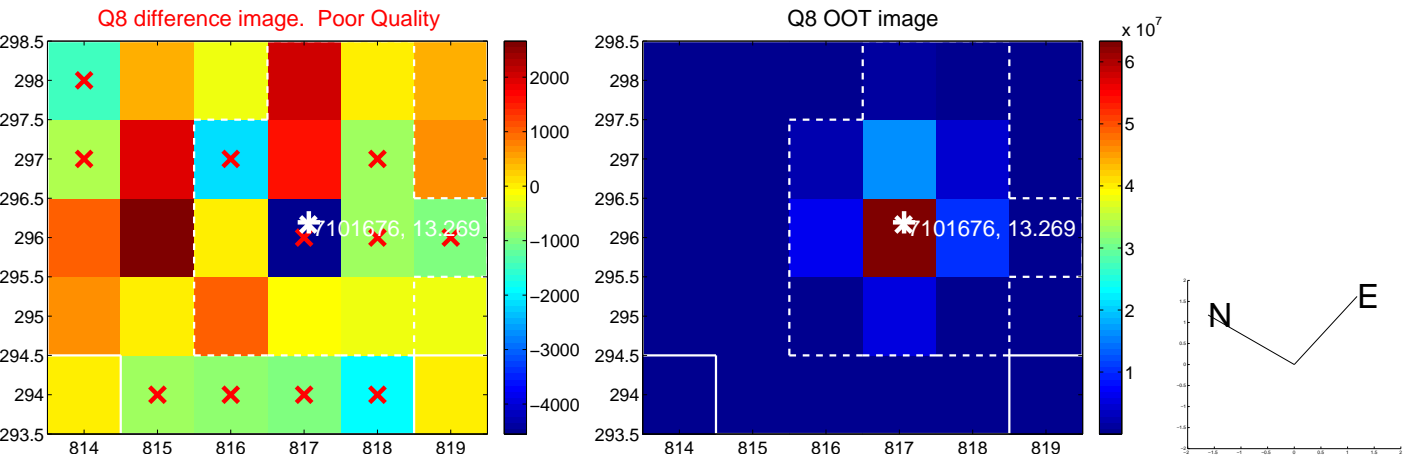
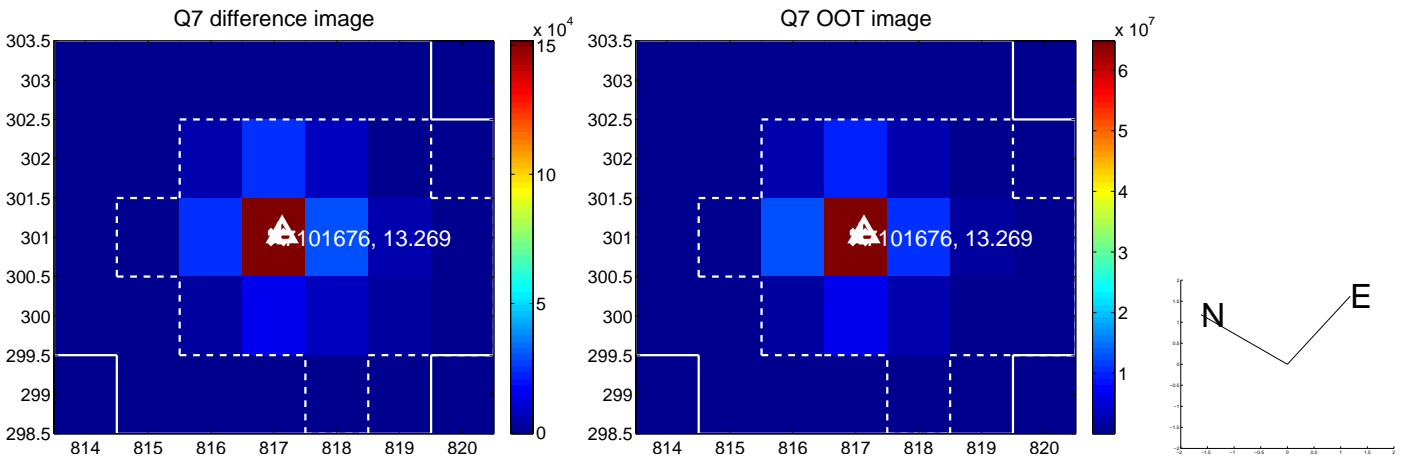
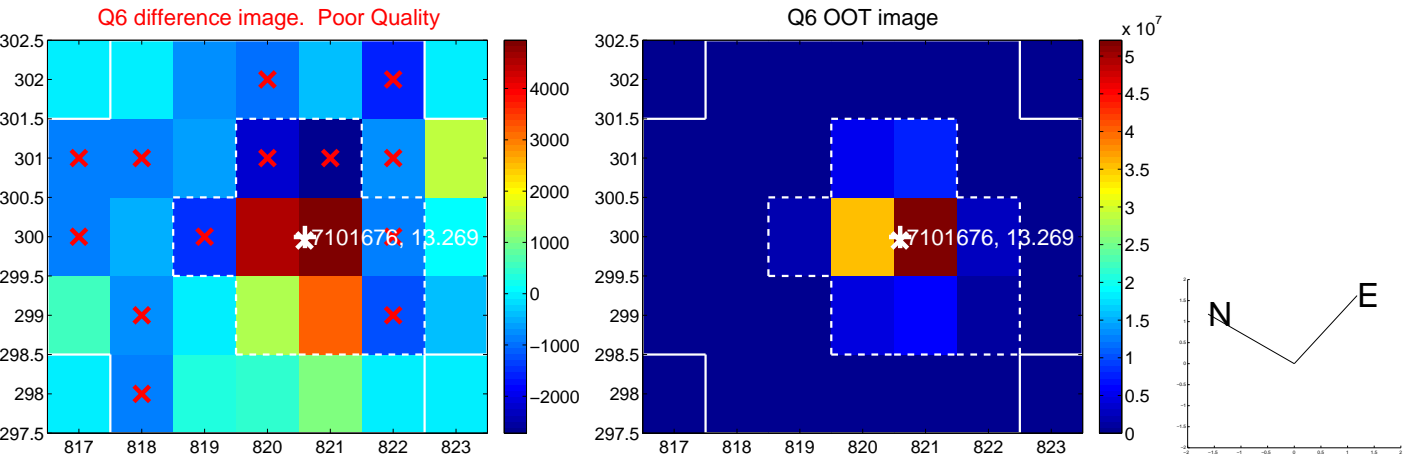
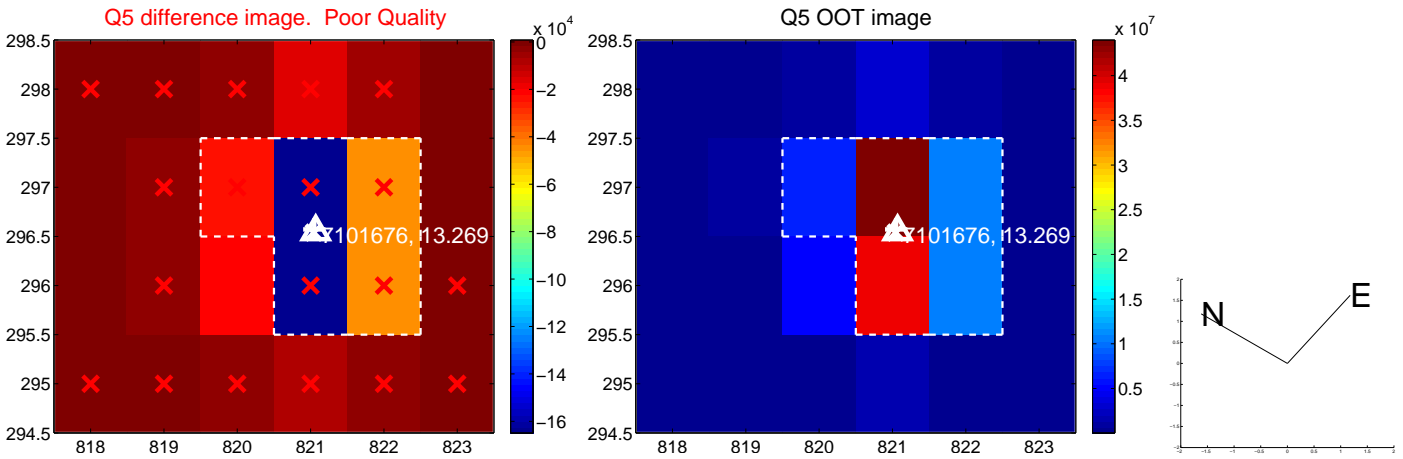


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

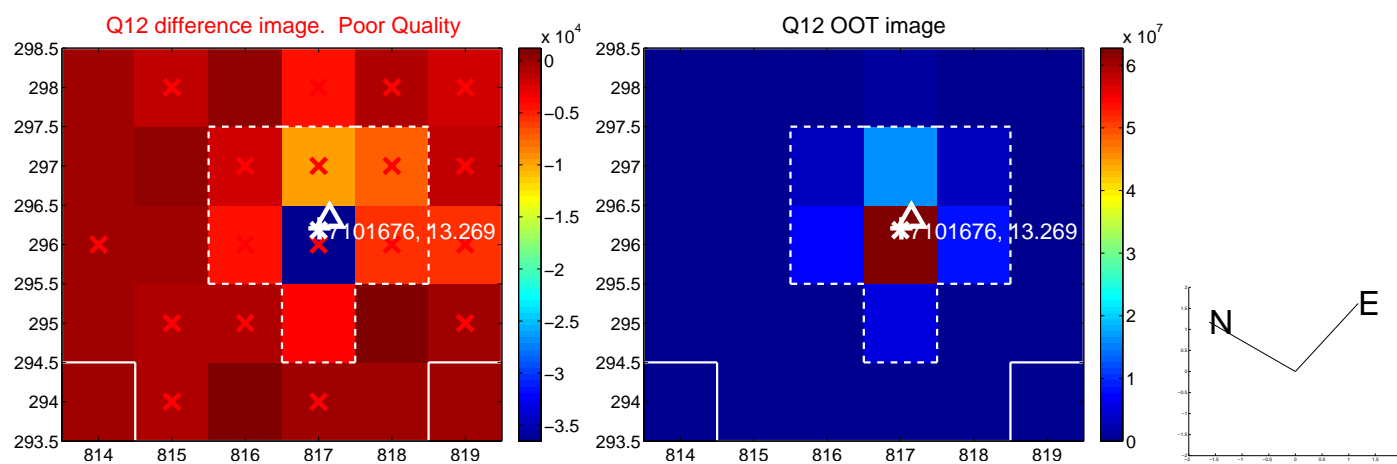
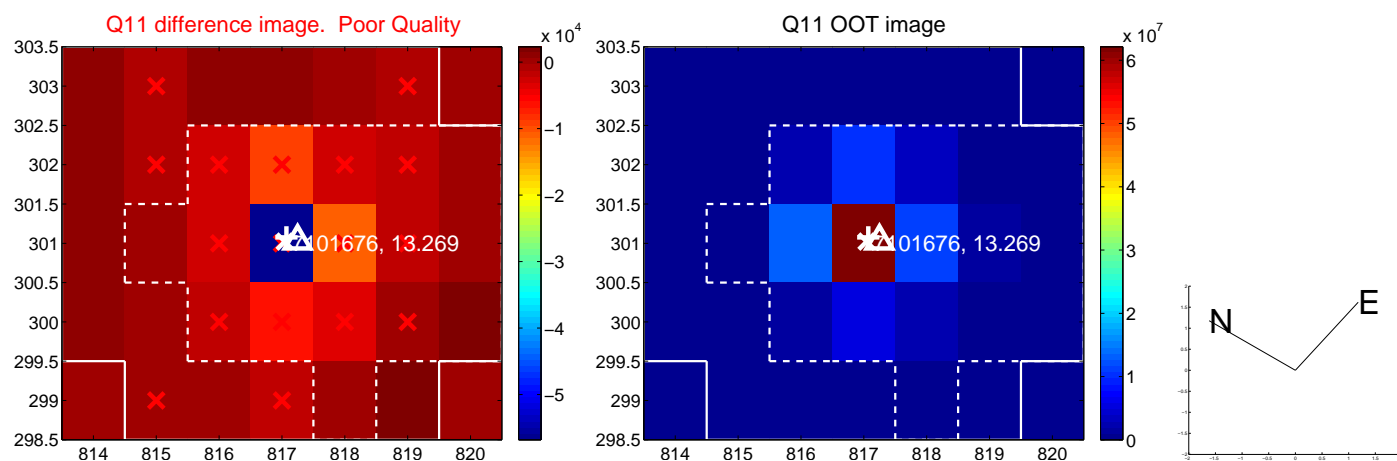
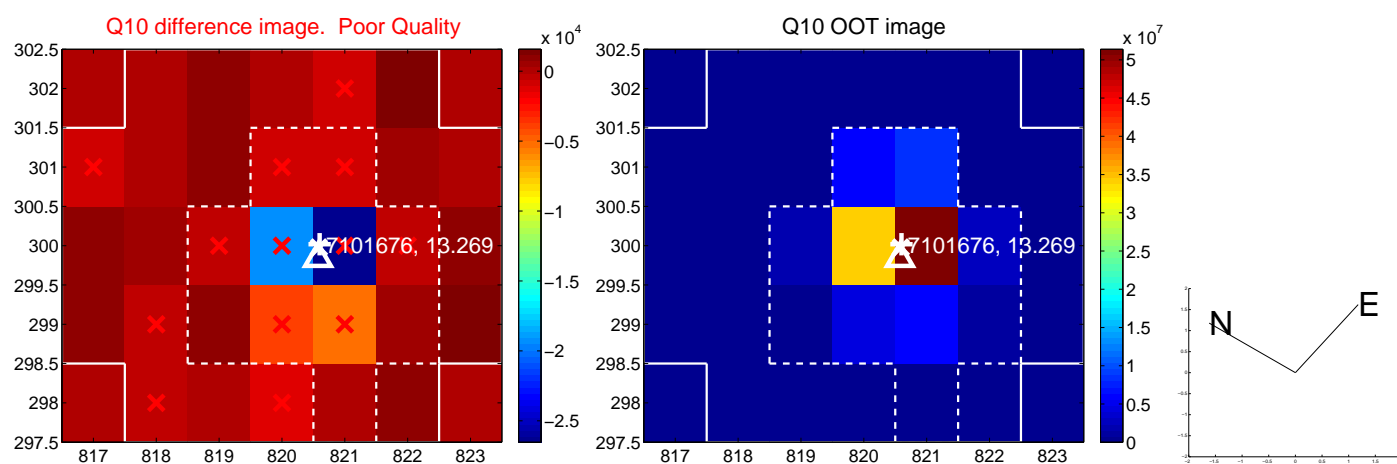
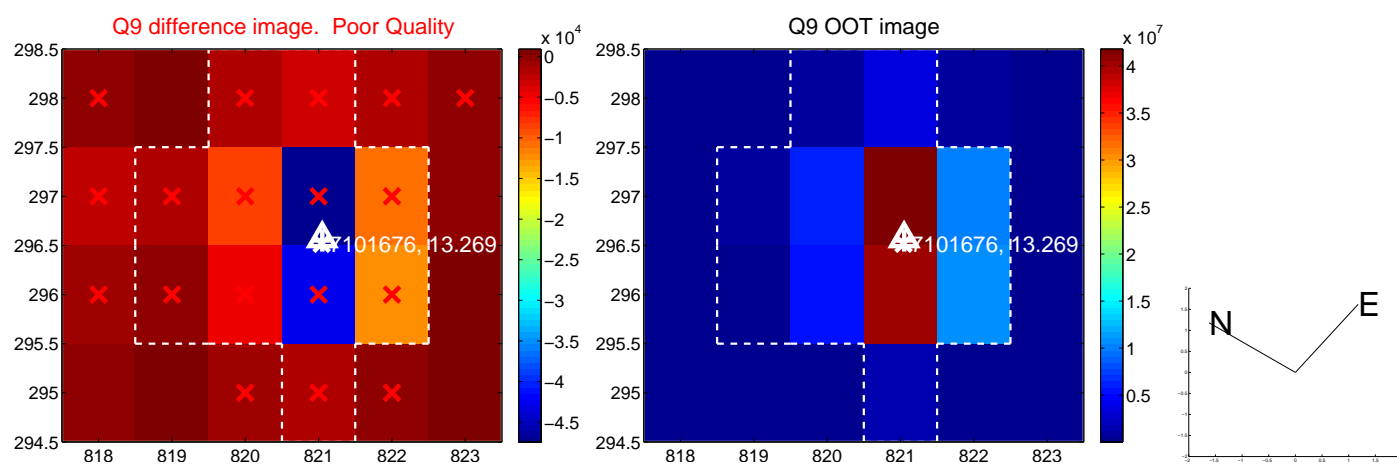
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



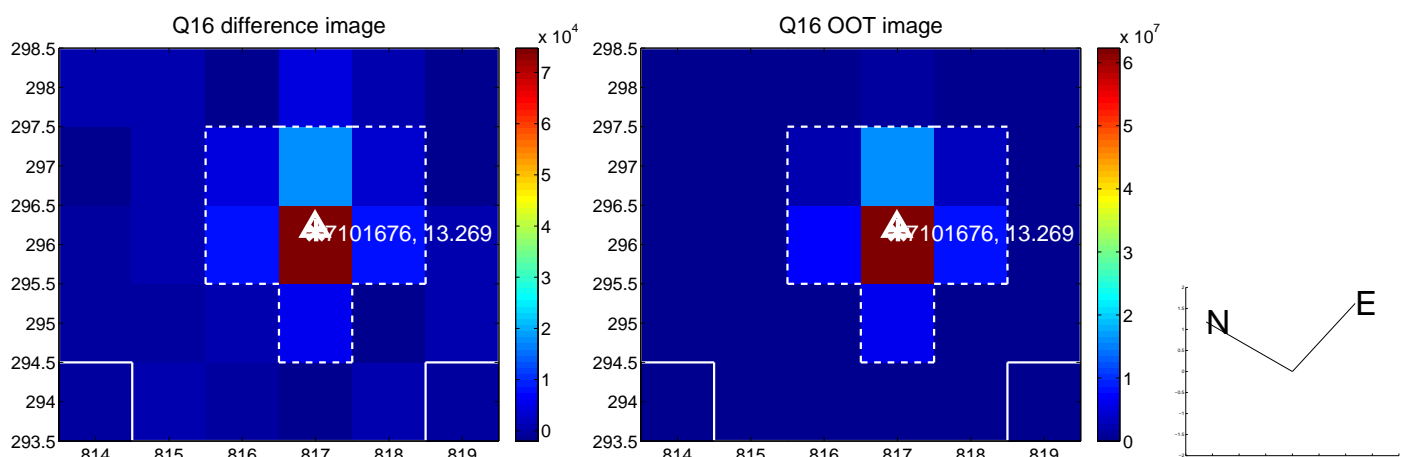
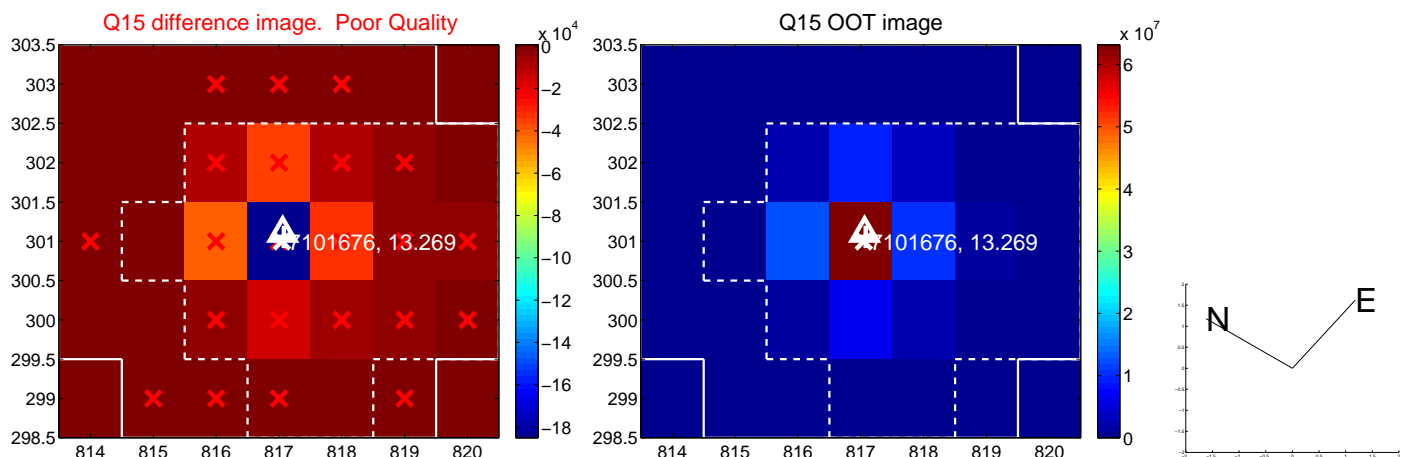
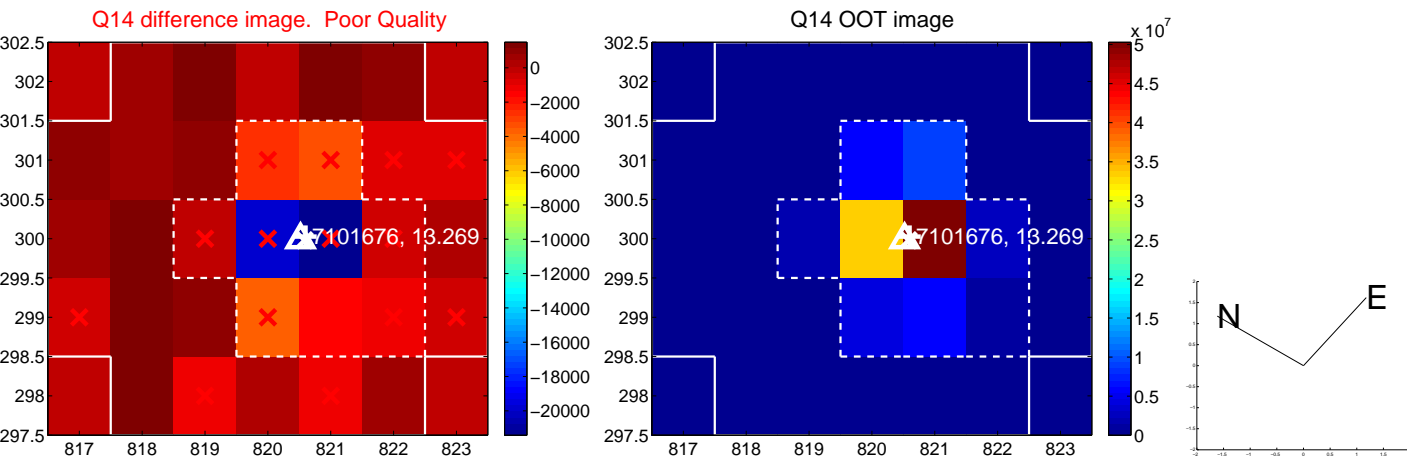
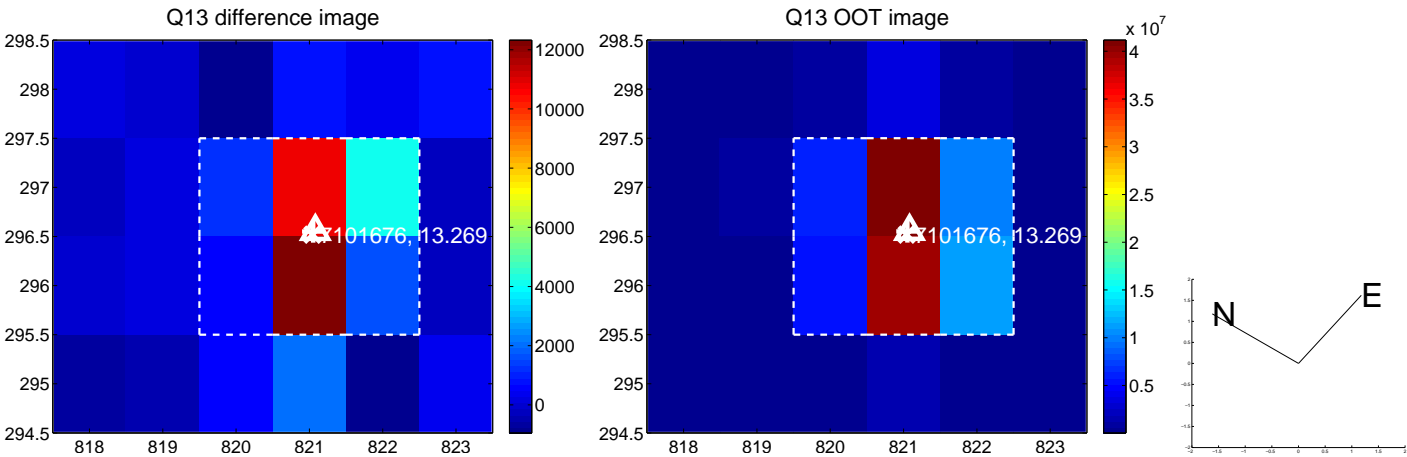
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



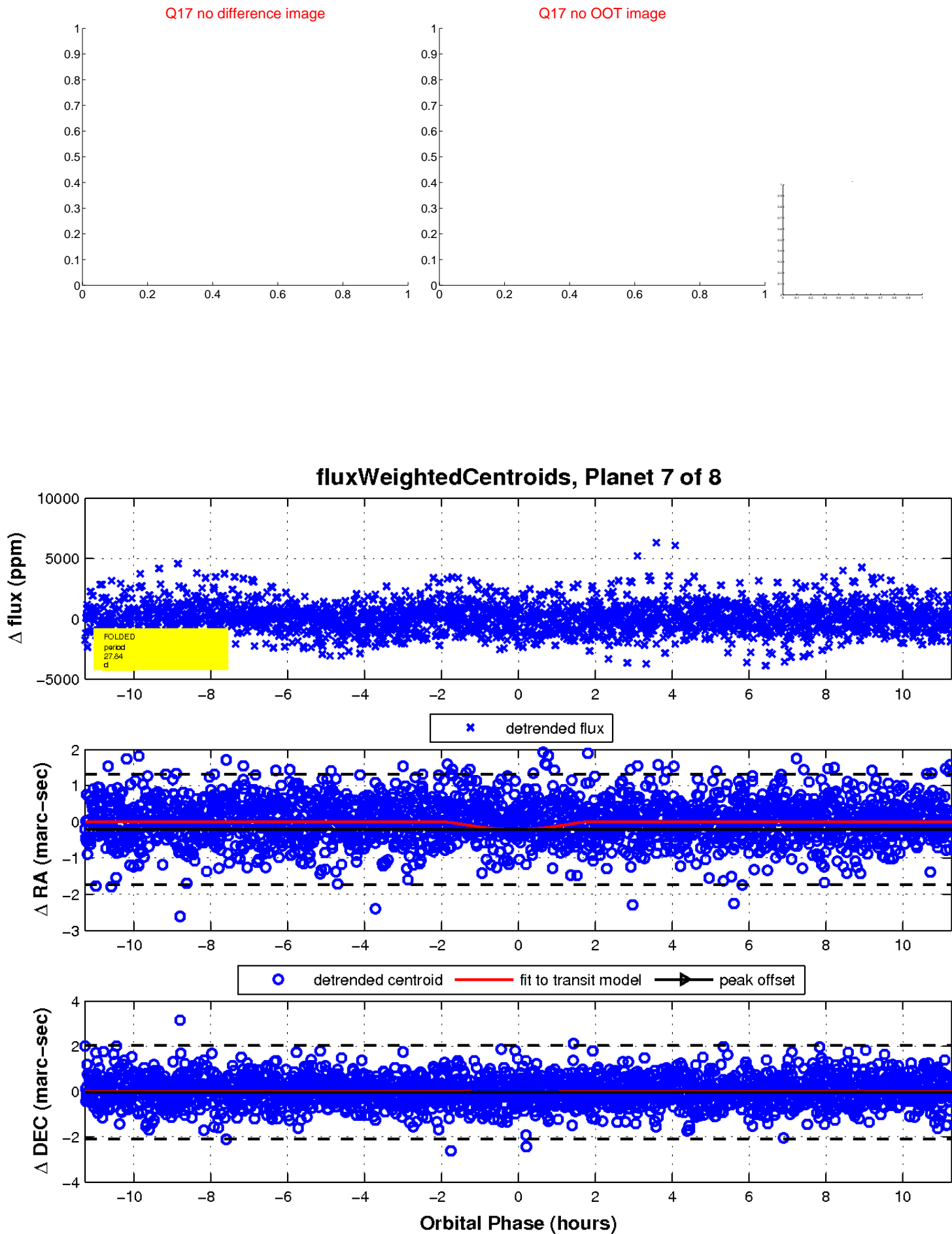
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

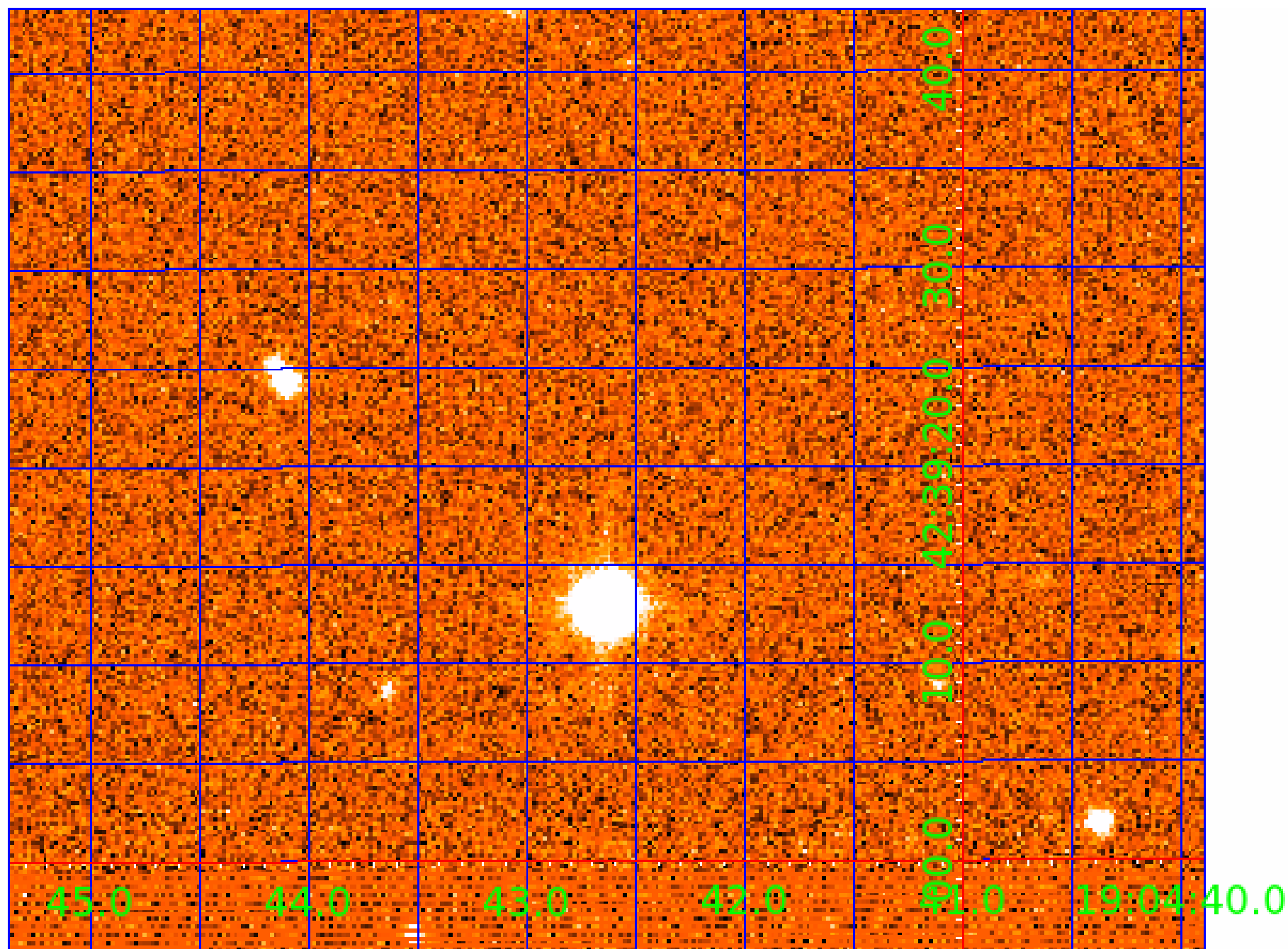


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 007101676

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007101676-01	OBS	No	0.695716	131.547106	18.1	2.521	10.4	2.1	1.89	7677	0.94	35131.68
007101676-02	OBS	No	0.695735	131.812000	53.3	2.442	10.9	5.0	1.89	7677	1.61	35130.38
007101676-03	OBS	No	233.138654	198.680511	2592.4	10.039	9.1	10.3	1.89	7677	9.91	15.09
007101676-04	OBS	No	17.371501	139.599201	1537.6	2.515	9.0	7.9	1.89	7677	7.82	481.38
007101676-06	OBS	No	10.404243	137.342248	478.1	1.665	8.5	3.3	1.89	7677	4.53	953.51
007101676-07	OBS	No	27.841844	138.968056	1896.7	3.762	8.7	8.2	1.89	7677	11.80	256.65
007101676-08	OBS	No	55.355036	156.375783	358.6	2.000	8.9	-1.0	1.89	7677	3.63	102.66

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007101676-01	OBS	FP	0.00	1	0	0	0	LPP_DV—MOD_NONUNIQ_ALT
007101676-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—SAME_NTL_PERIOD
007101676-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES
007101676-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007101676-06	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_ZUMA_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
007101676-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_ALT—MOD_POS_ALT
007101676-08	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—CENT_NOFITS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

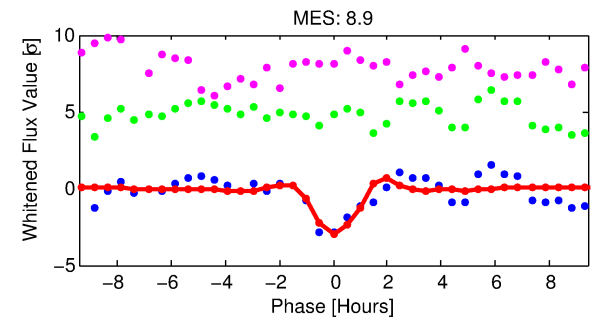
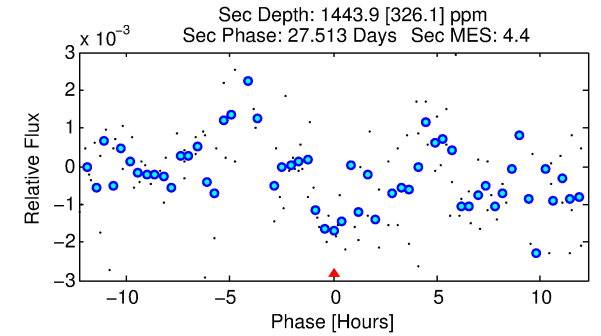
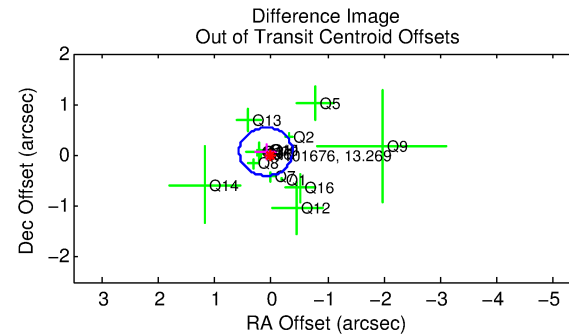
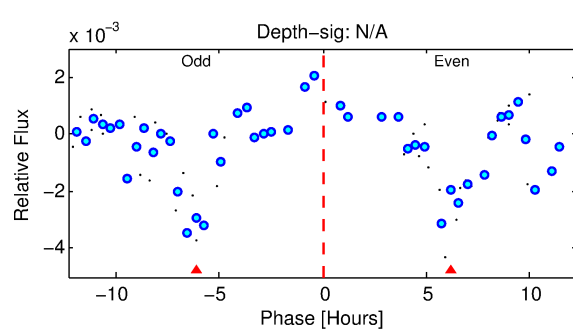
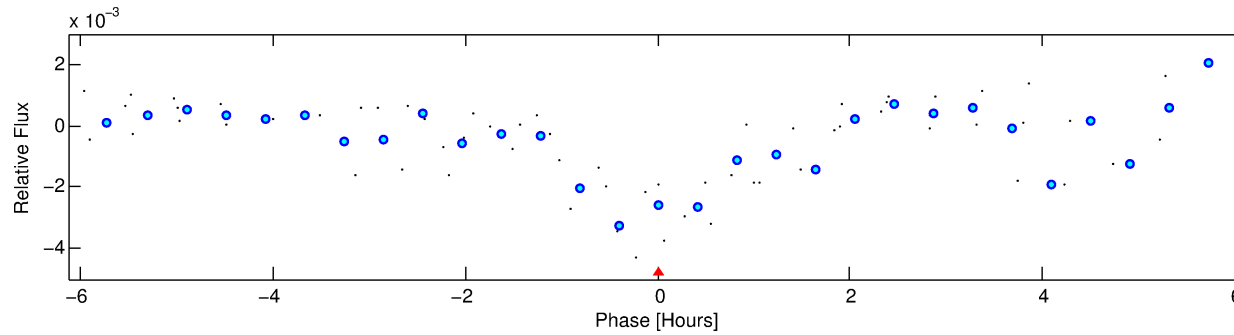
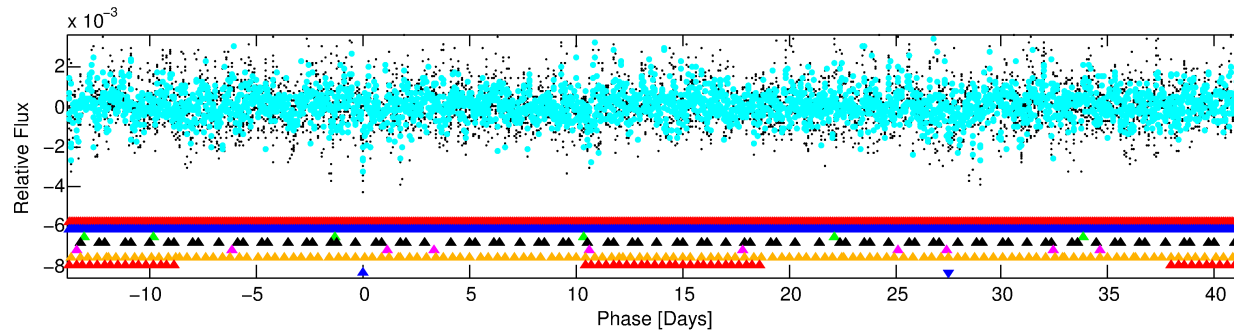
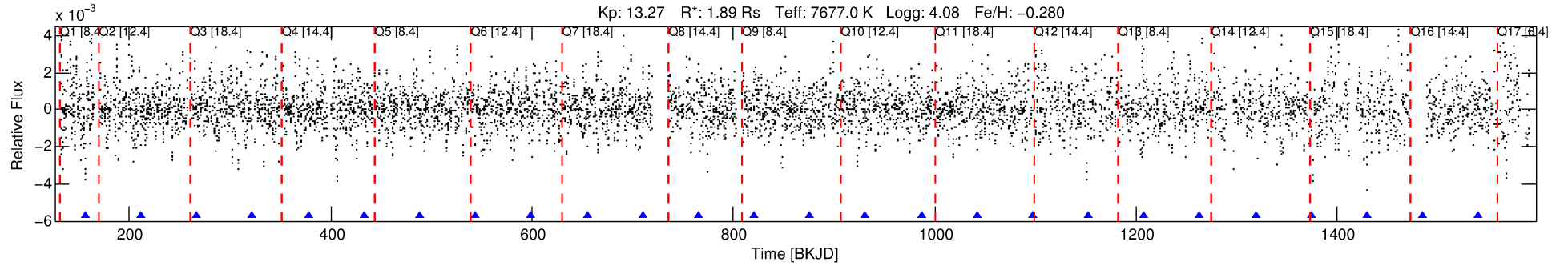
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007101676-08

No Significant Match Found

DV One-Page Summary

KIC: 7101676 Candidate: 8 of 8 Period: 55.355 d



TPS TCE Results:

Period = 55.35504 d
Epoch = 156.3758 BKJD

DV fit results are unavailable

DV Diagnostic Results:

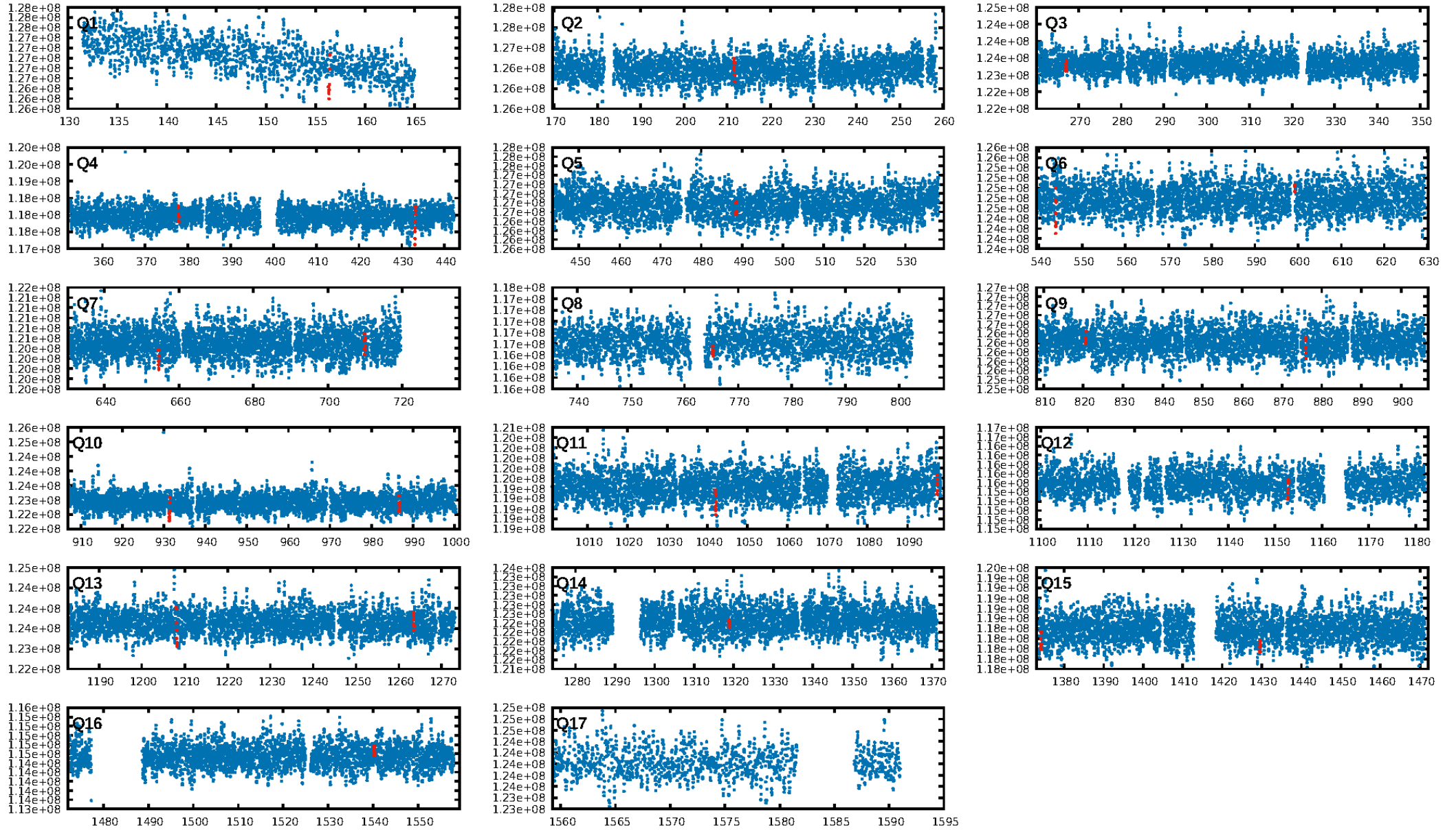
ShortPeriod-sig: 100.0% [155.00σ]
LongPeriod-sig: 100.0% [153.02σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [6/6]
GhostDiagnostic-chr: 0.8878

Centroid-sig: 19.3%
Centroid-so: 0.109 arcsec [2.18σ]
OotOffset-rm: 0.113 arcsec [0.72σ]
KicOffset-rm: 0.269 arcsec [1.61σ]
OotOffset-st: 4/4/4/4 [16]
KicOffset-st: 4/4/4/4 [16]
DiffImageQuality-fgm: 0.88 [14/16]
DiffImageOverlap-fno: 0.00 [0/16]

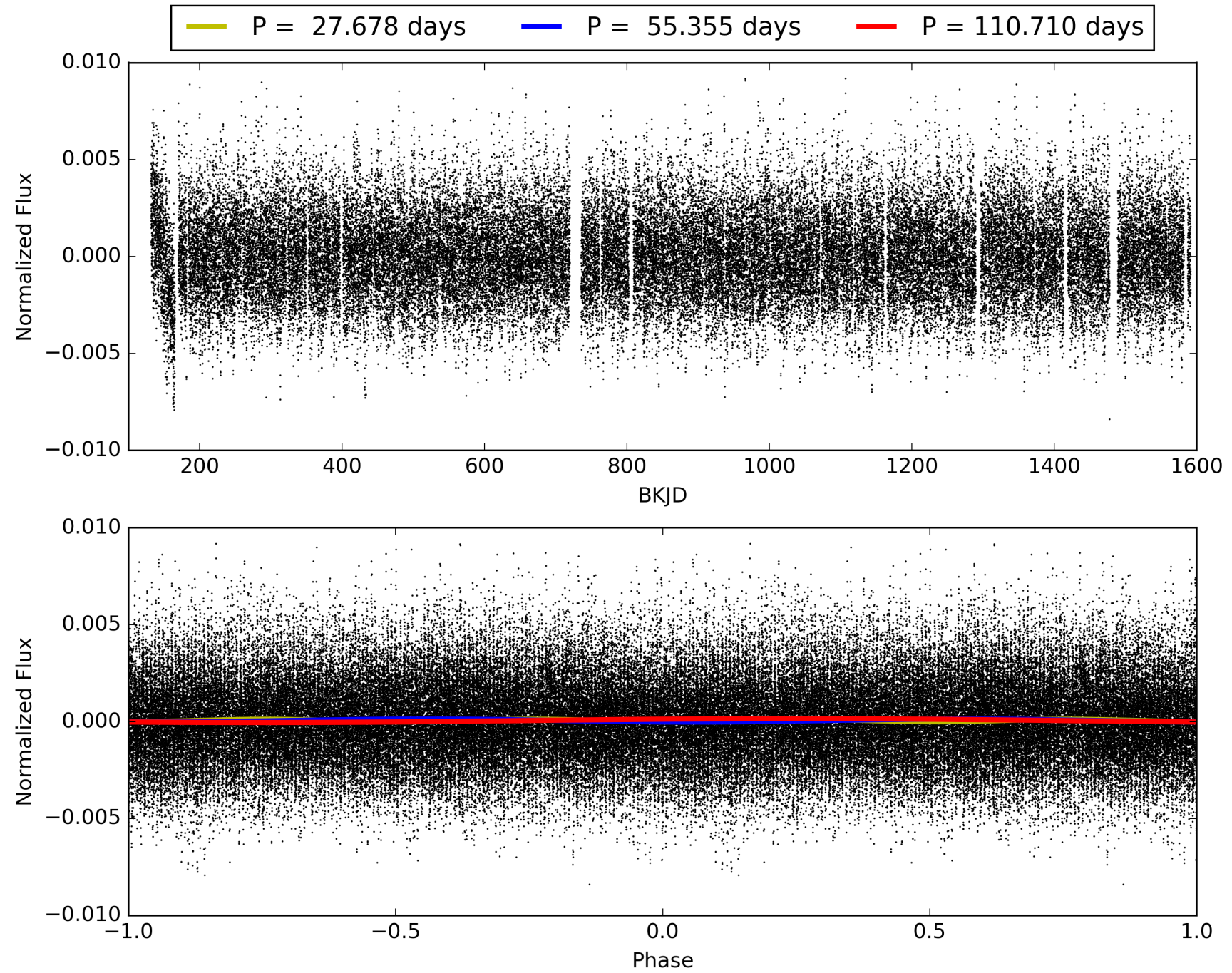
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 02-Feb-2016 07:59:35 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007101676-08, PDC Light Curves

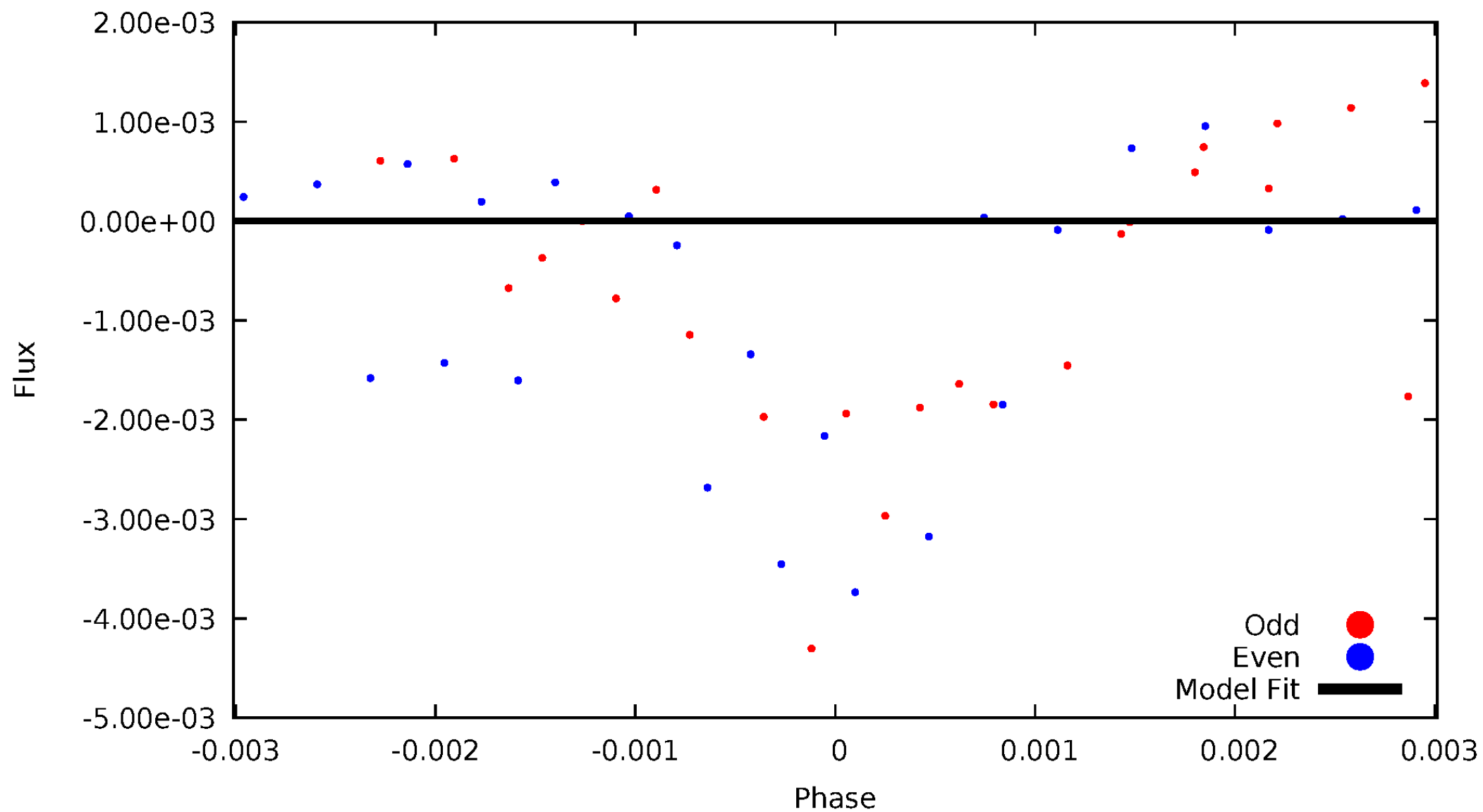


TCE 007101676-08



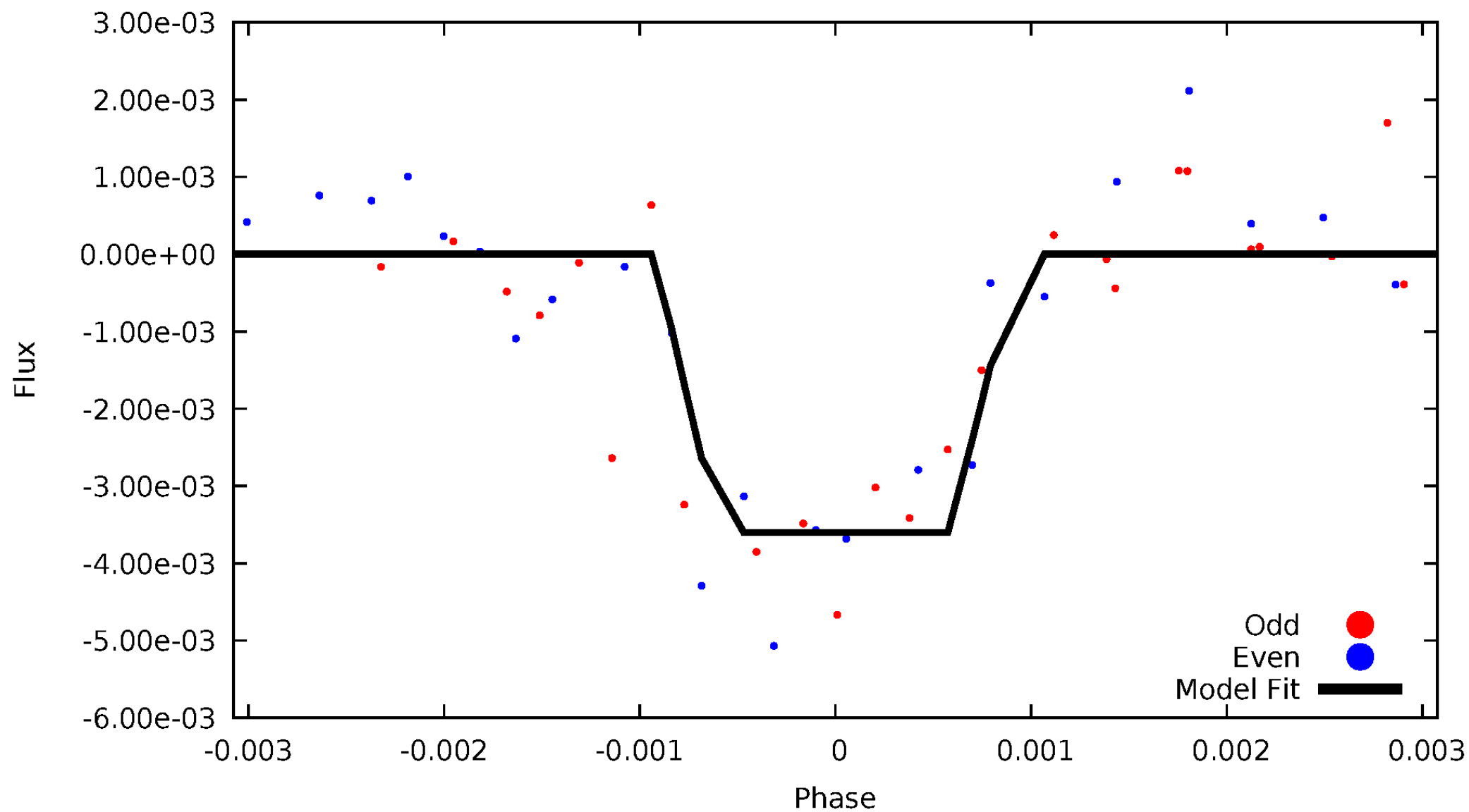
DV Odd/Even

TCE 007101676-08



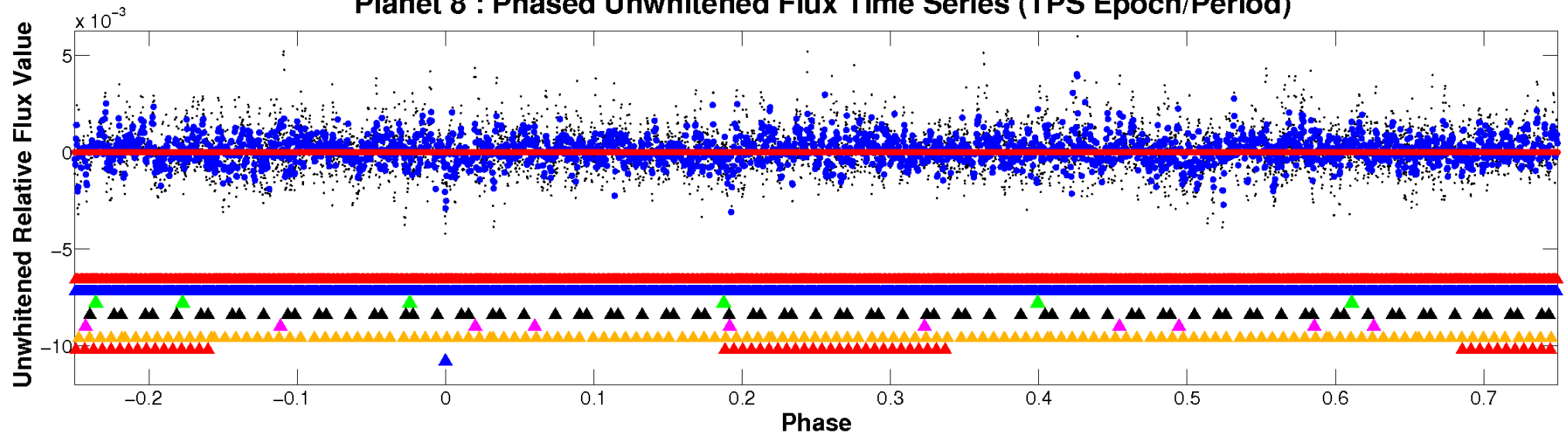
ALT Odd/Even

TCE 007101676-08

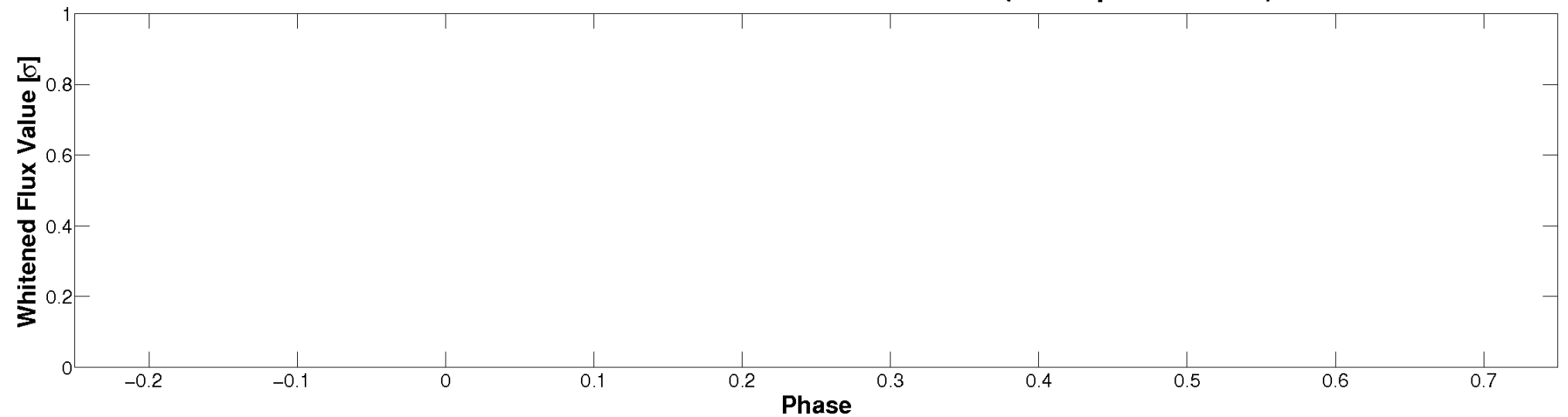


Non-Whitened Vs. Whitened Light Curve

Planet 8 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

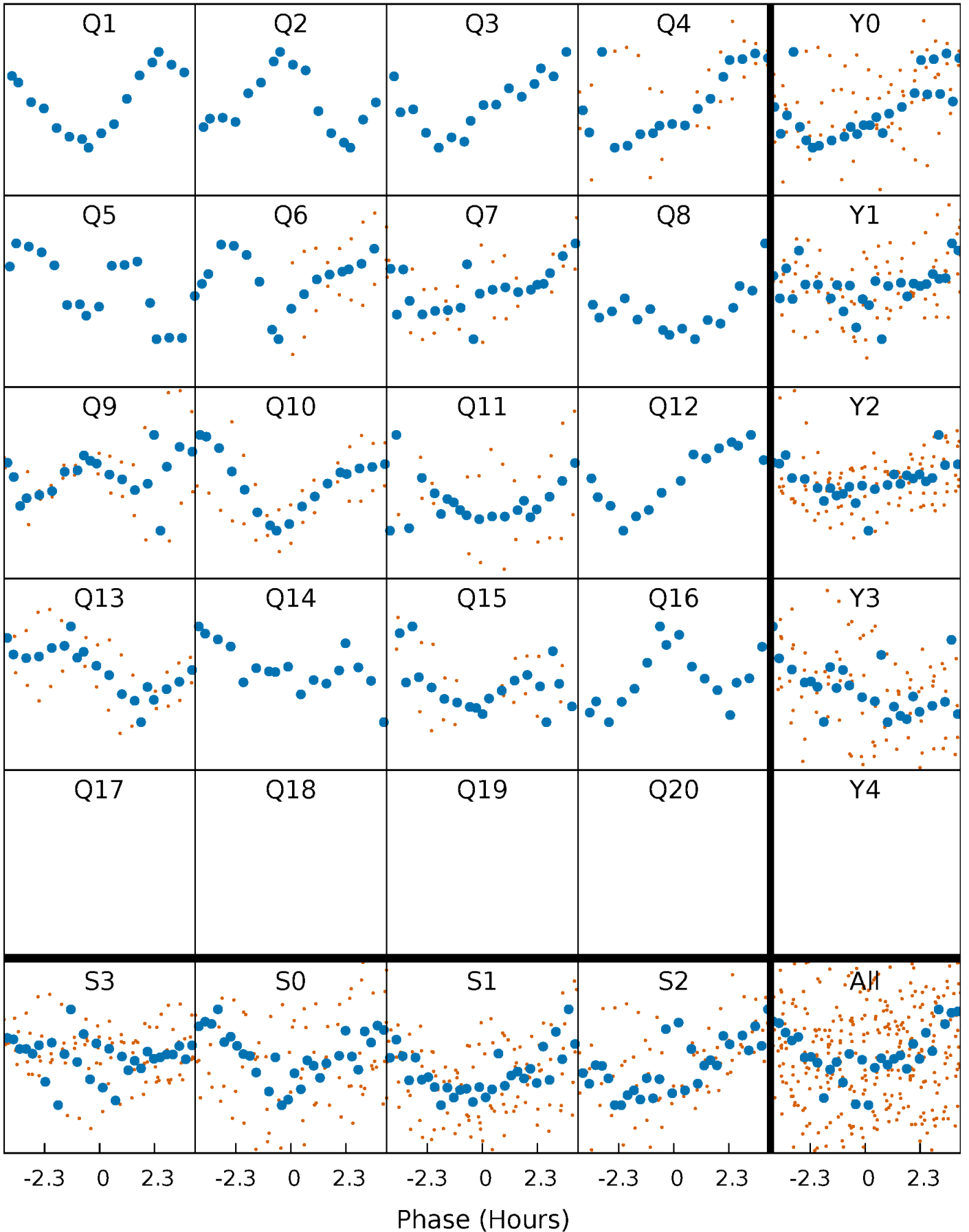


Planet 8 : Phased Whitened Flux Time Series (TPS Epoch/Period)



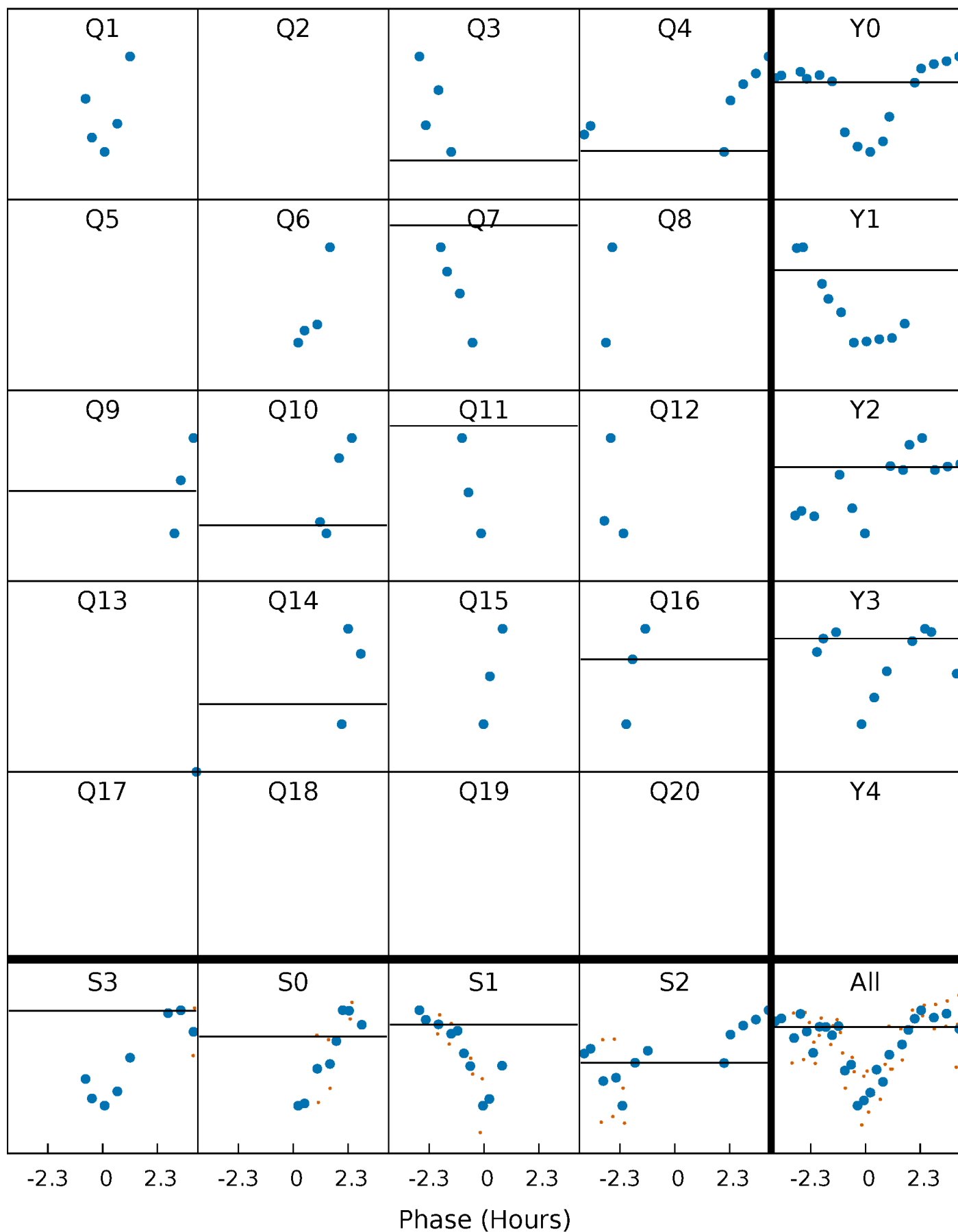
PDC Quarter-Phased Transit Curves

TCE 007101676-08 P= 55.355036 Days $T_0=156.375783$ (BKJD)



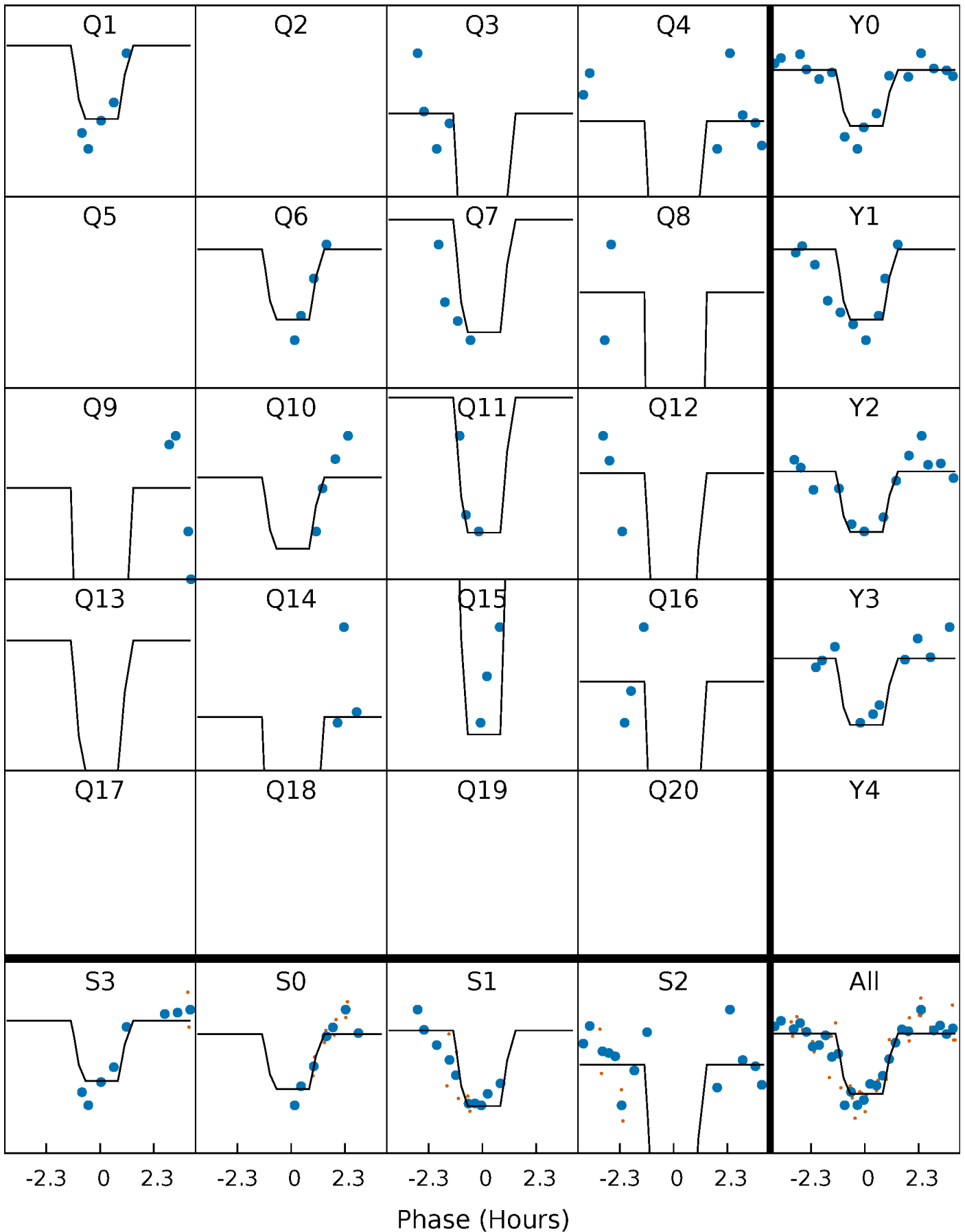
DV Quarter-Phased Transit Curves

TCE 007101676-08 P= 55.355036 Days $T_0=156.375783$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

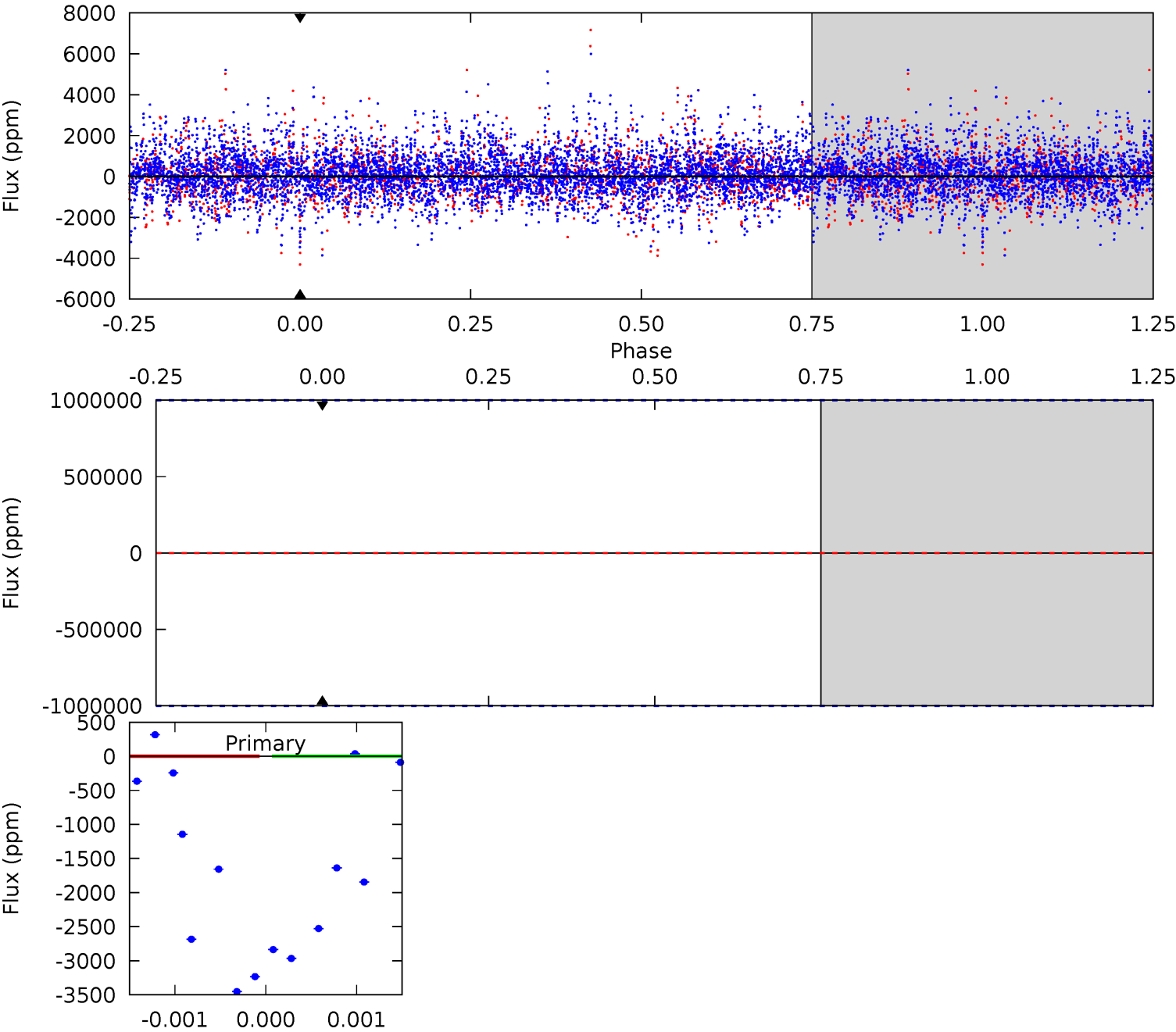
TCE 007101676-08 P= 55.355036 Days $T_0=156.378252$ (BKJD)



DV Model-Shift Uniqueness Test

007101676-08, P = 55.355036 Days, E = 101.020747 Days

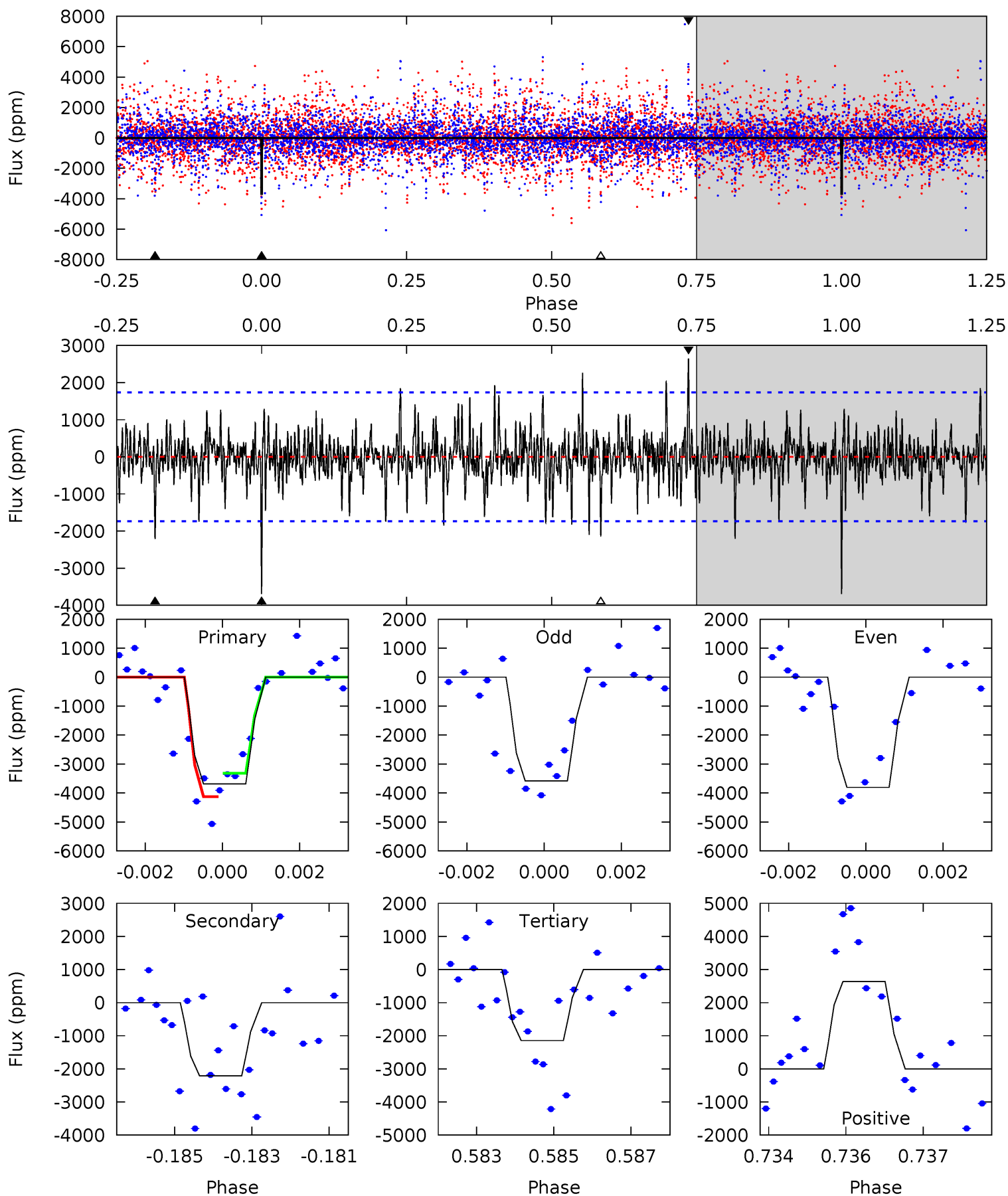
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



Alt Model-Shift Uniqueness Test

007101676-08, P = 55.355036 Days, E = 101.023216 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.3	6.79	6.59	8.10	5.34	3.10	1.66	4.75	3.25	0.19	-1.31	0.33	0.96	0.42	1.24



Stellar Parameters For KIC 007101676

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7677^{+241}_{-295}	$4.076^{+0.170}_{-0.170}$	$-0.280^{+0.200}_{-0.300}$	$1.892^{+0.533}_{-0.436}$	$1.551^{+0.214}_{-0.235}$	$0.323^{+0.301}_{-0.158}$
	+3%/-4%	+4%/-4%	+71%/-107%	+28%/-23%	+14%/-15%	+93%/-49%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007101676-08 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	0 ± 1000000	$15.97^{+15.33}_{-11.17}$	1134^{+86}_{-80}	-6376^{+56180}_{-29773}	$-718.156^{+54484.210}_{-36506.502}$
Alt.	-2208 ± 325	$18.74^{+17.14}_{-12.05}$	1126^{+93}_{-76}	5363^{+4357}_{-1191}	366^{+2697}_{-267}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

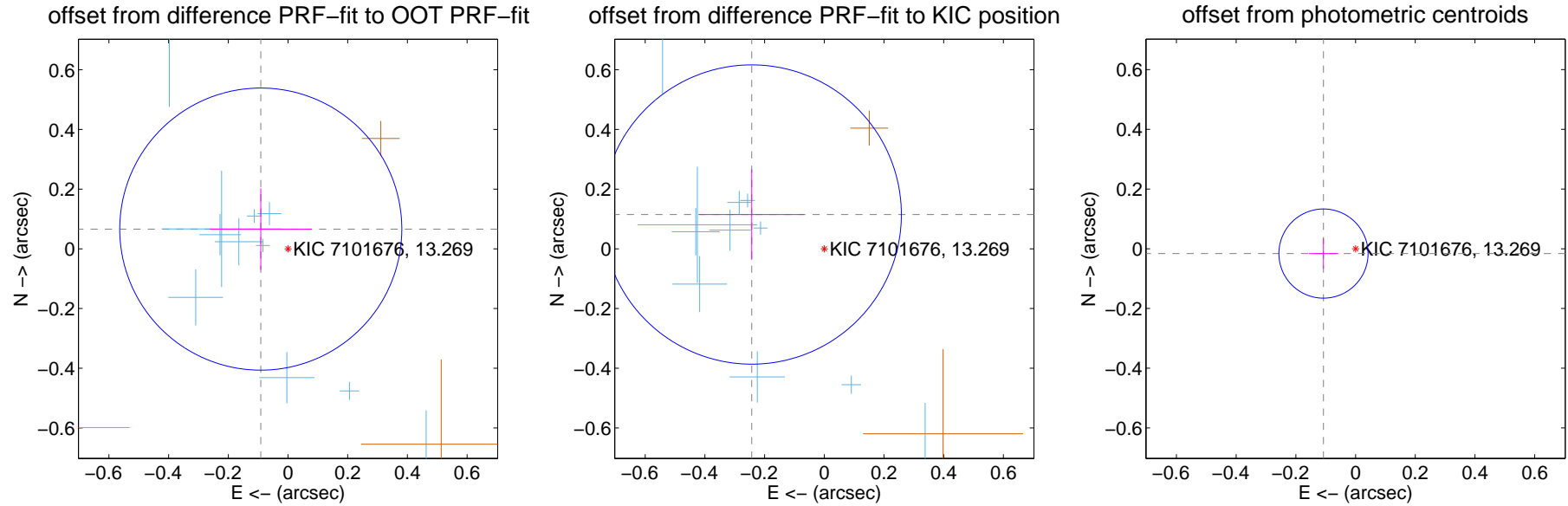
DV Centroid Data

Supplemental centroid analysis for 007101676-08. Kepler magnitude: 13.27. Transit SNR -1.00

There are 14 quarters with good PRF difference image offsets

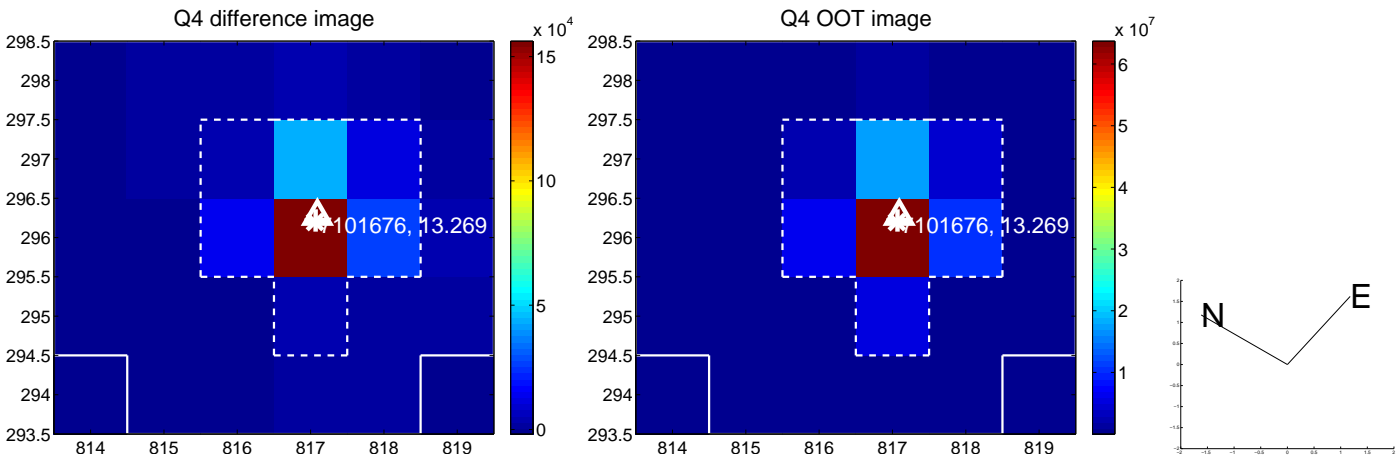
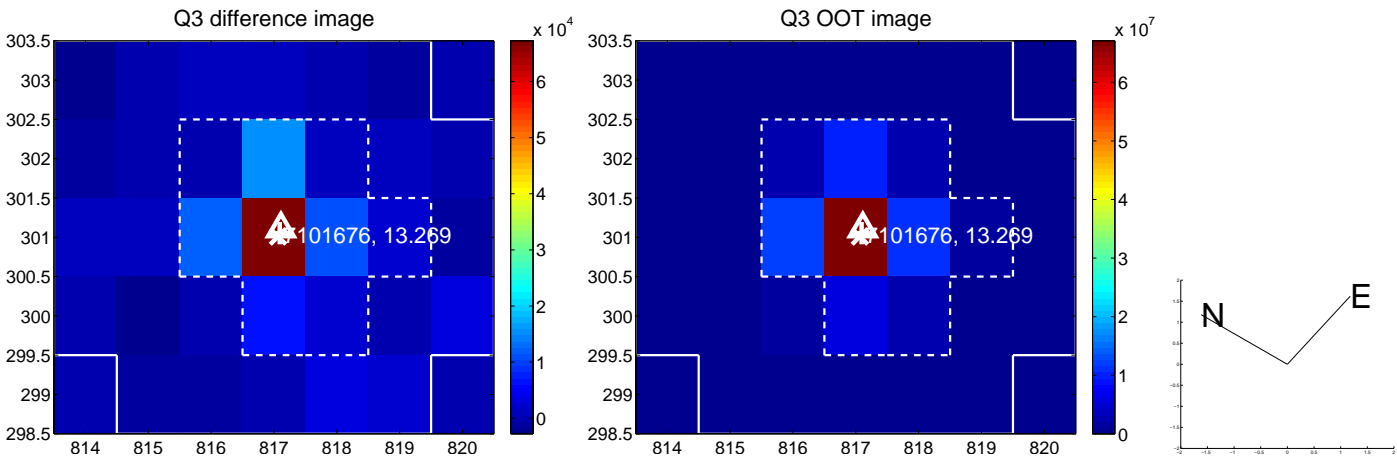
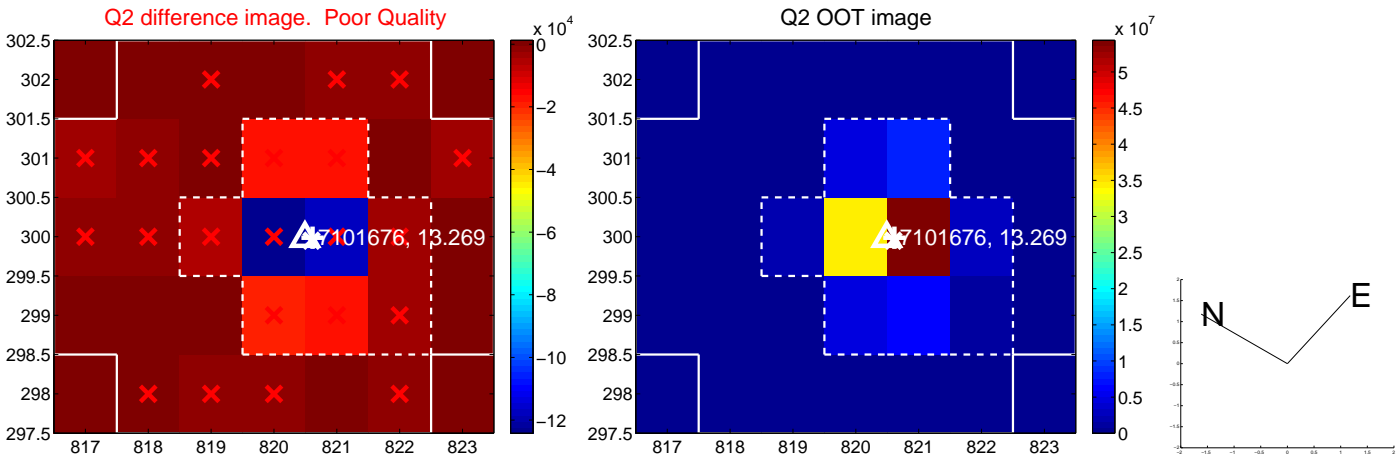
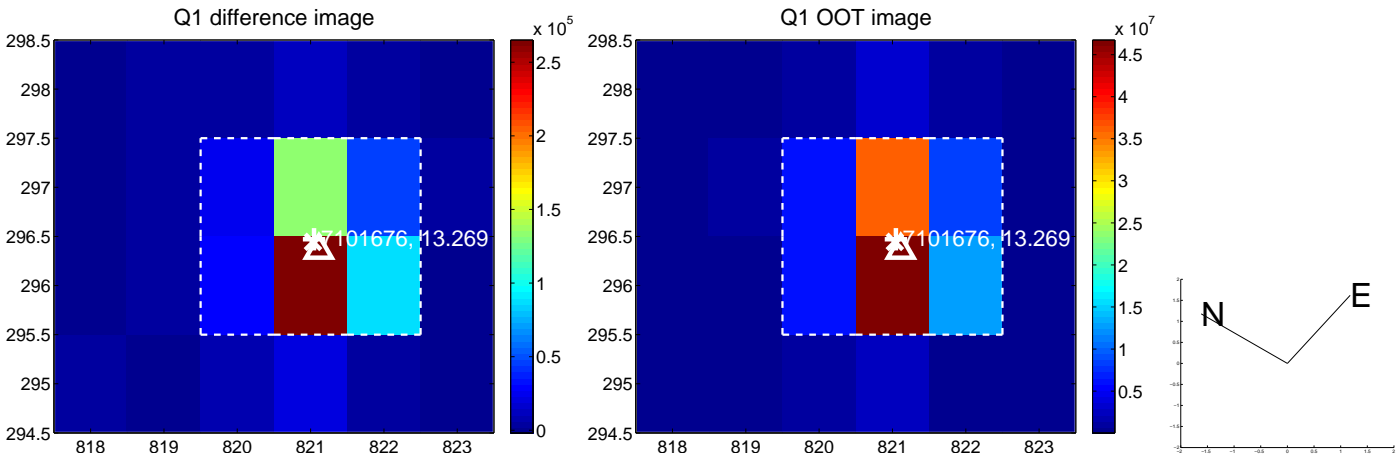
The direct PRF centroid is offset from the target star catalog position by about 0.12 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.113 ± 0.158	0.72	0.091 ± 0.171	0.066 ± 0.137
PRF-fit source offset from KIC position	0.269 ± 0.167	1.61	0.243 ± 0.175	0.115 ± 0.152
photometric centroid source offset	0.11 ± 0.05	2.18	0.11 ± 0.05	-0.02 ± 0.05

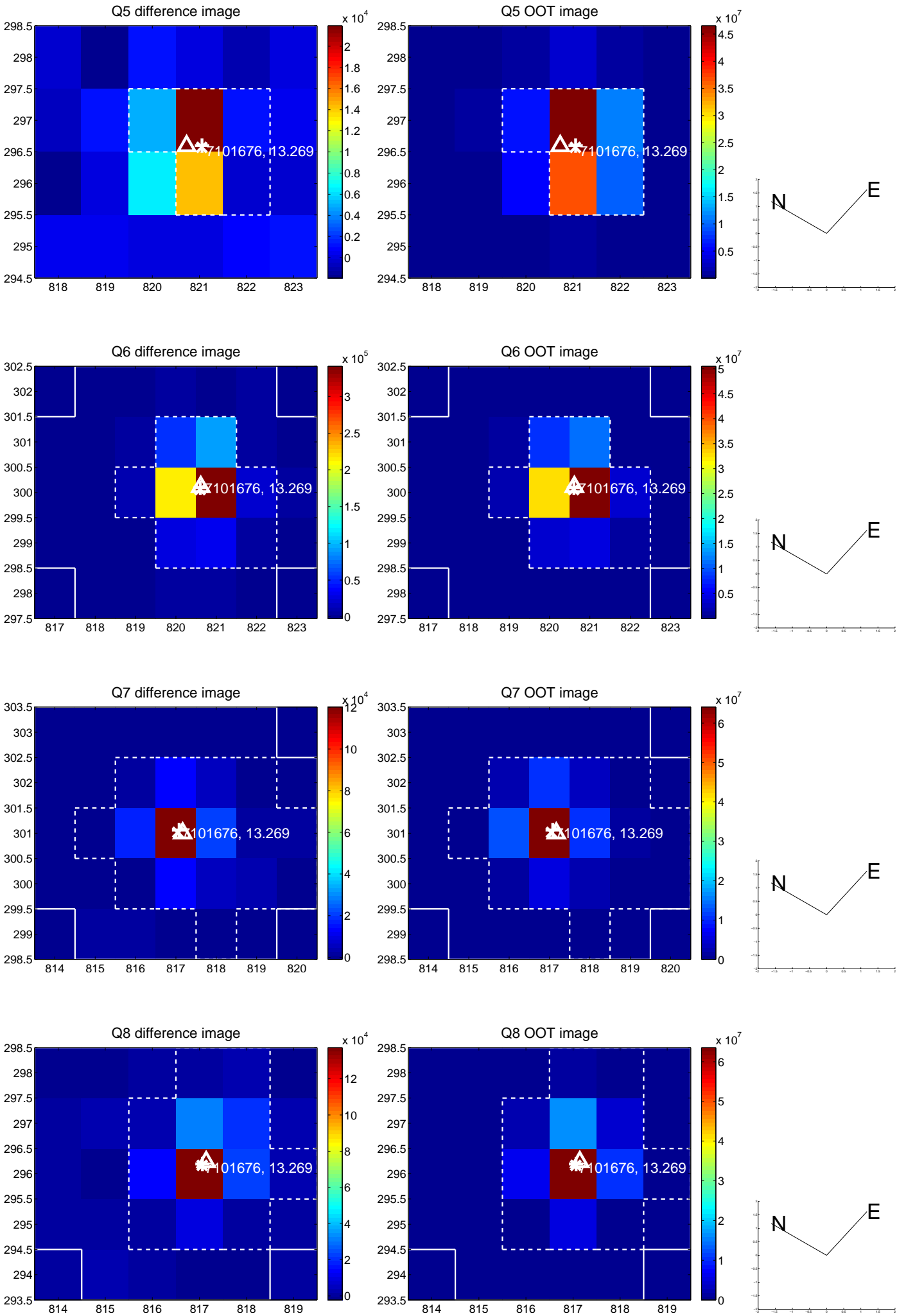


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

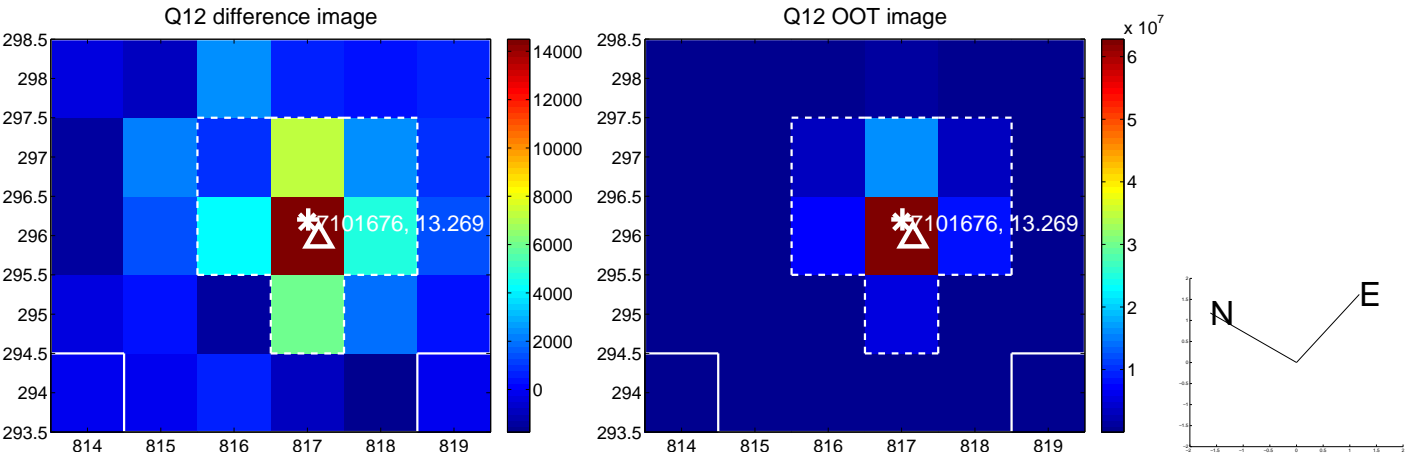
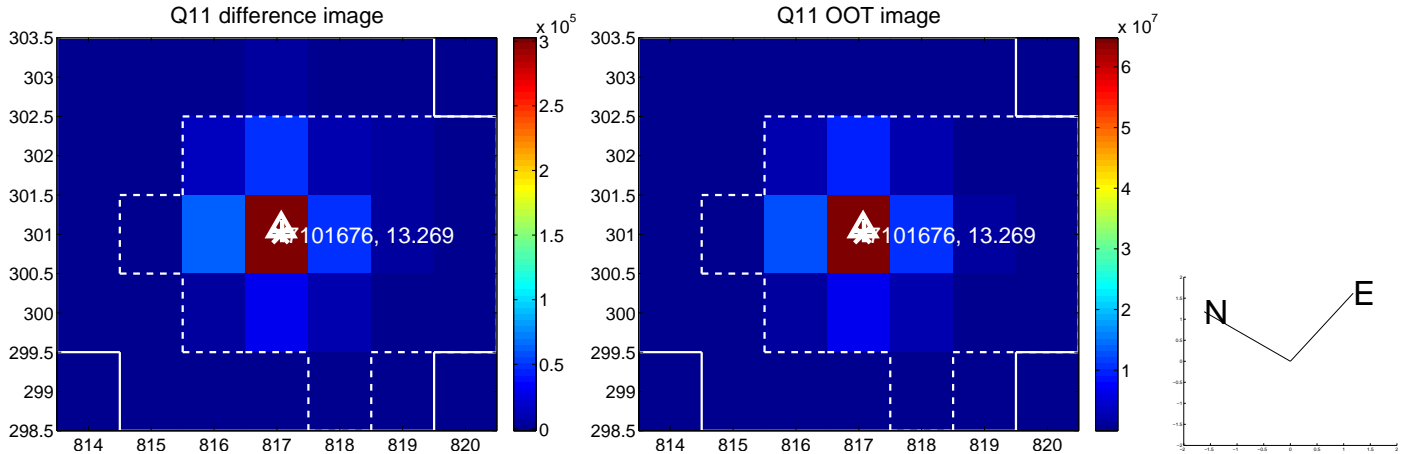
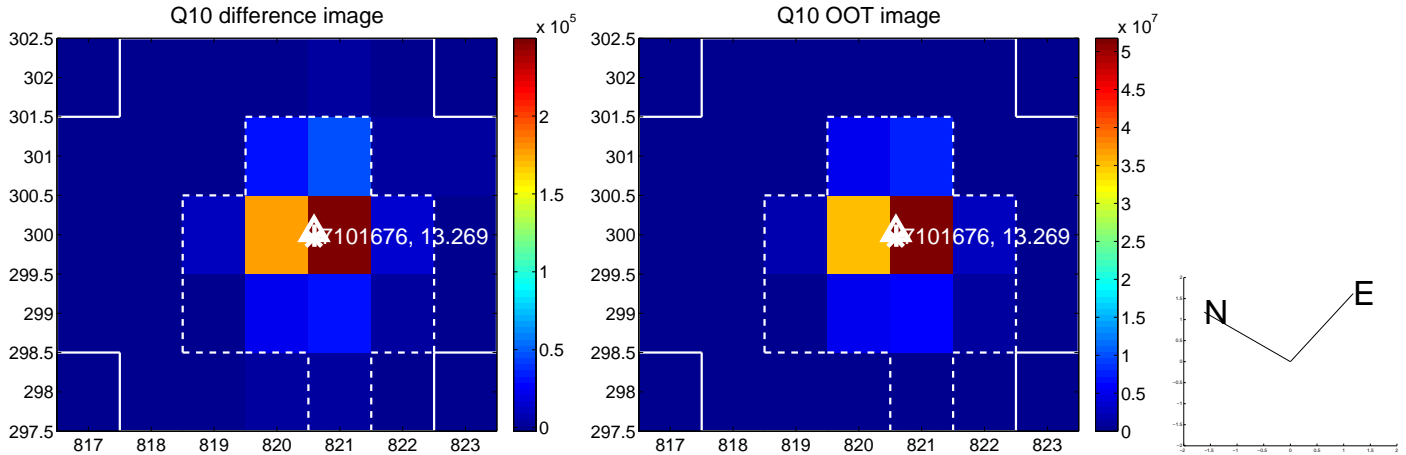
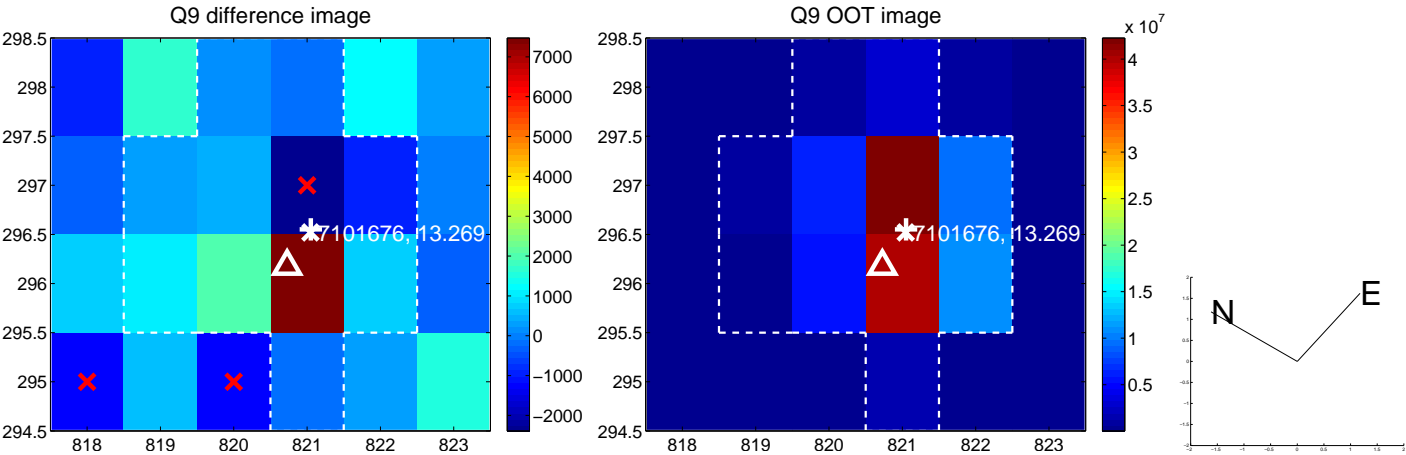
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



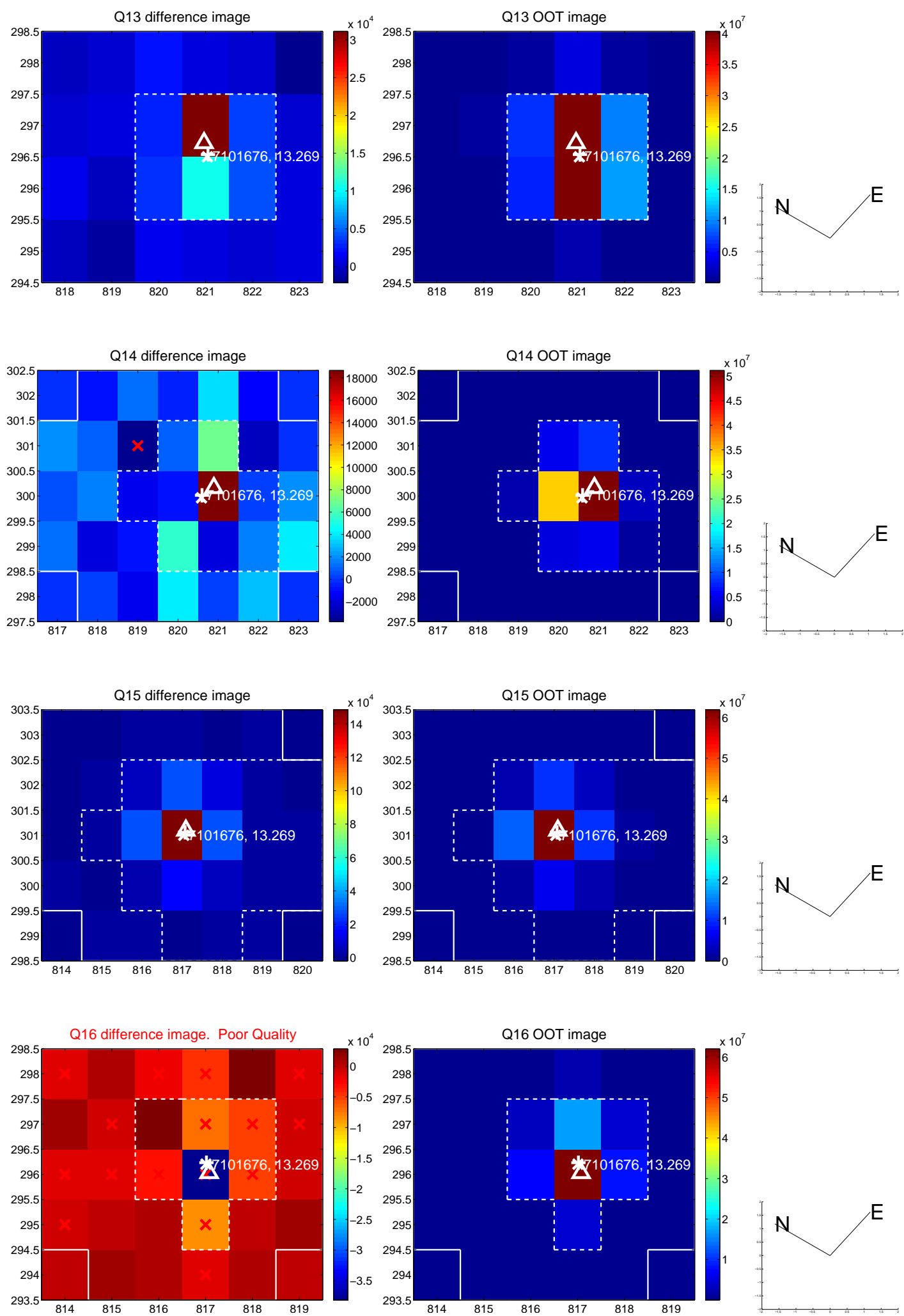
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



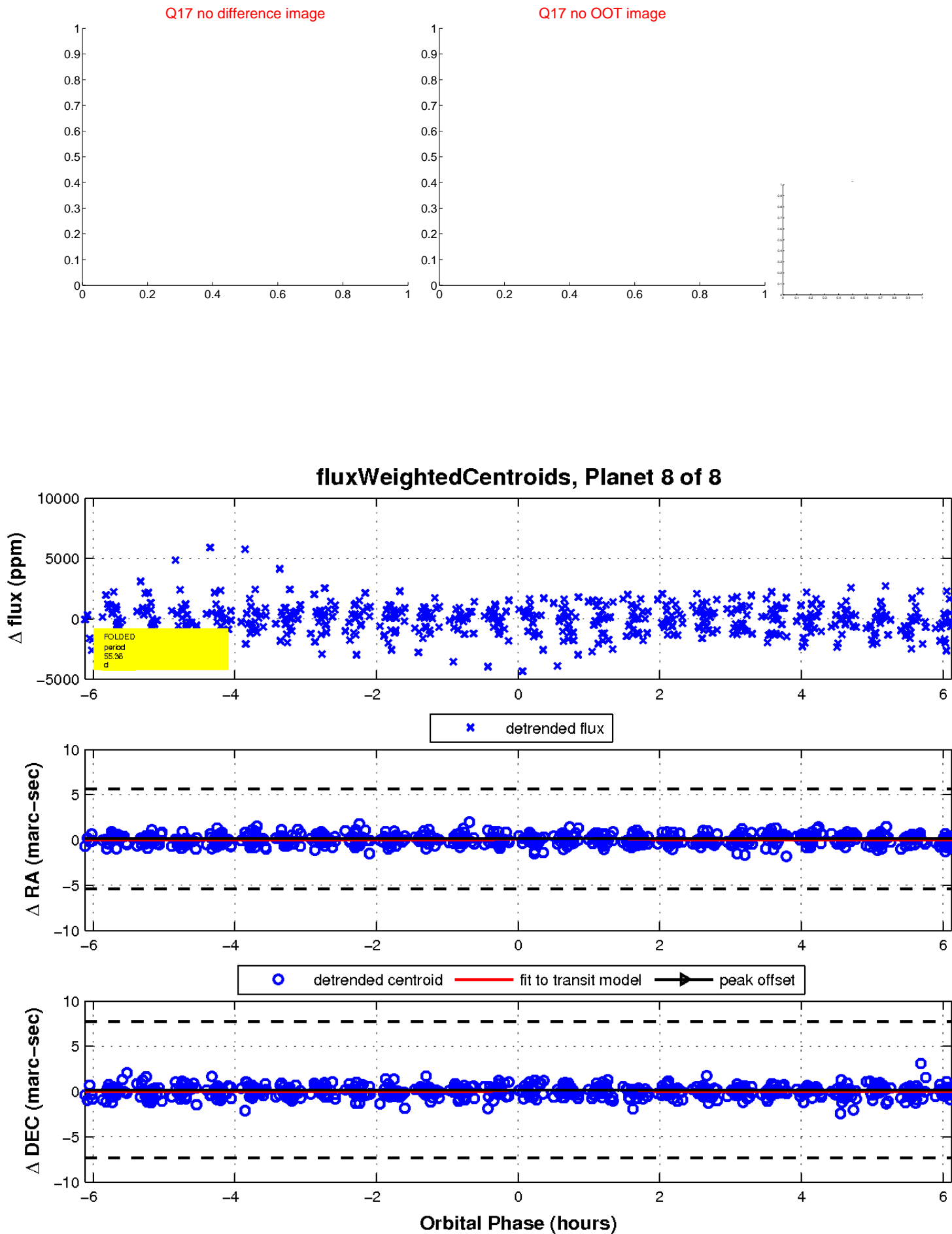
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

