

KIC 005653693

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})
005653693-01	OBS	No	0.676527	131.643937	36.9	3.889	12.9	12.9	0.72	5127	0.44	1824.43
005653693-02	OBS	No	114.150526	198.430118	363.2	6.550	11.6	7.8	0.72	5127	1.54	1.96
005653693-03	OBS	No	361.274292	311.946568	460.0	5.547	8.5	7.8	0.72	5127	1.80	0.42
005653693-04	OBS	No	103.711913	220.569321	269.5	9.016	7.6	7.1	0.72	5127	1.32	2.22
005653693-05	OBS	No	98.672607	213.410086	539.7	1.312	7.5	7.2	0.72	5127	1.99	2.38
005653693-06	OBS	No	97.206434	146.343636	467.1	2.440	7.1	7.4	0.72	5127	1.83	2.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005653693-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
005653693-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005653693-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005653693-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
005653693-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_TRACKER—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST
005653693-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_UNRESOLVED_OFFSET

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

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

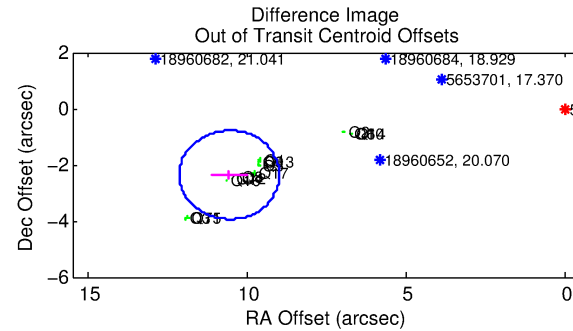
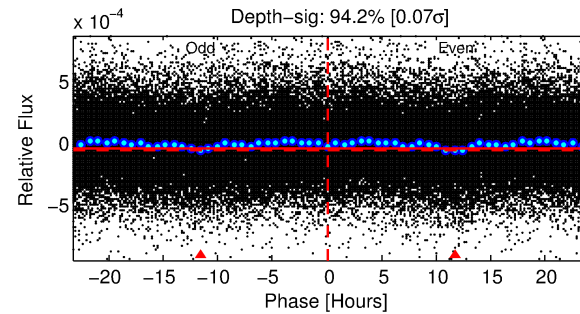
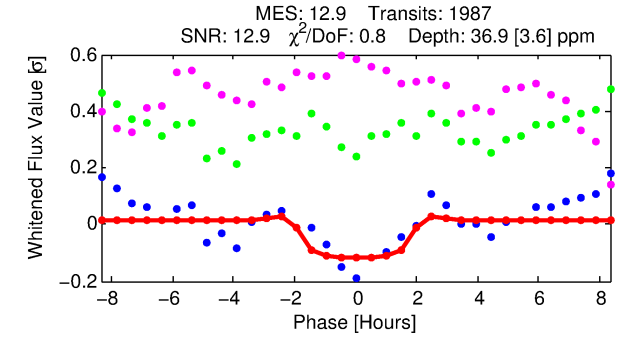
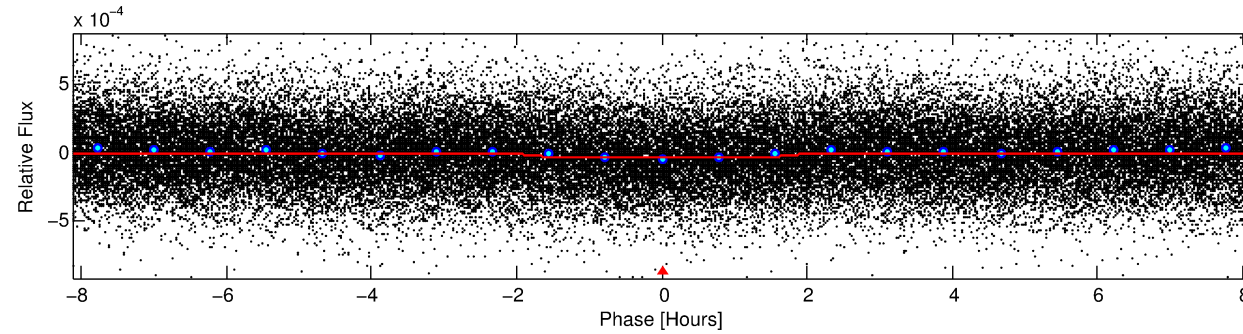
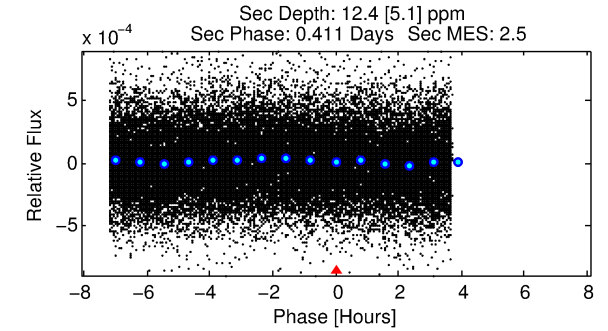
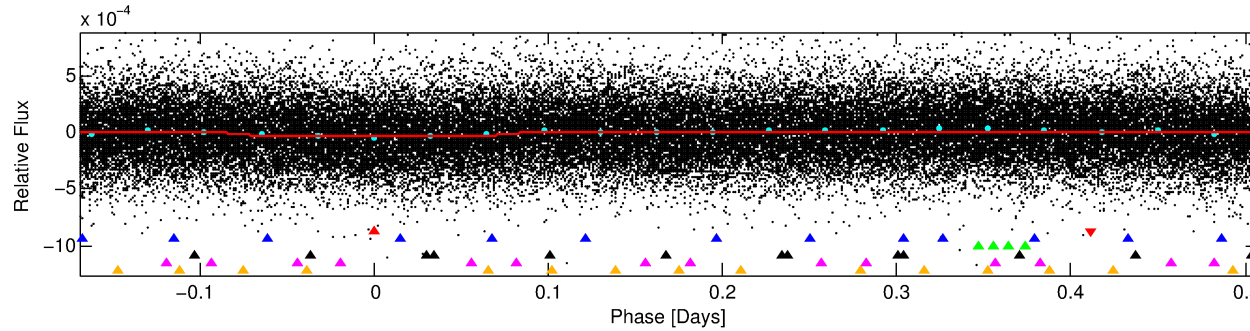
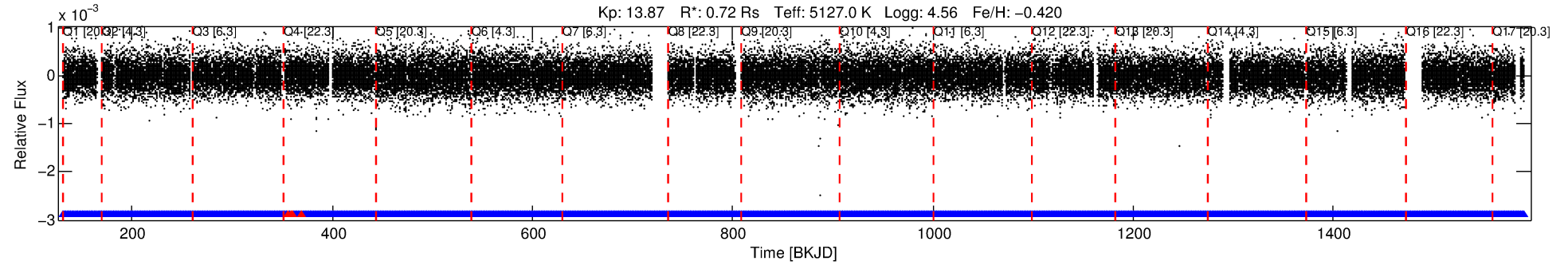
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005653693-01

No Significant Match Found

DV One-Page Summary

KIC: 5653693 Candidate: 1 of 6 Period: 0.677 d



DV Fit Results:

Period = 0.67653 [0.00001] d
Epoch = 131.6439 [0.0030] BKJD
Rp/R* = 0.0056 [0.0037]
a/R* = 1.39 [1.67]
b = 0.46 [4.39]
Seff = 1824.43 [343.84]
Teq = 1667 [79] K
Rp = 0.44 [0.30] Re
a = 0.0133 [0.0013] AU
Ag = 6.16 [8.64] [0.60σ]
Teff = 4060 [1421] K [1.68σ]

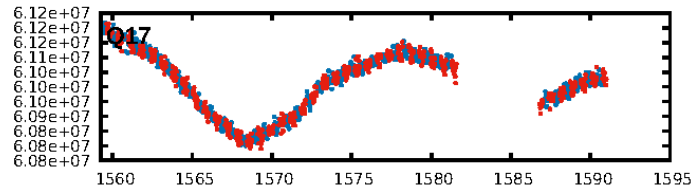
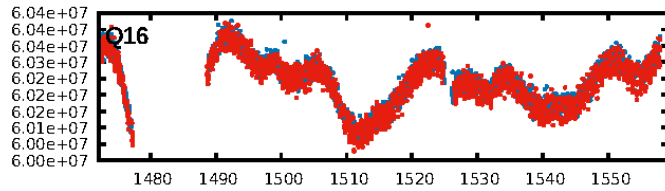
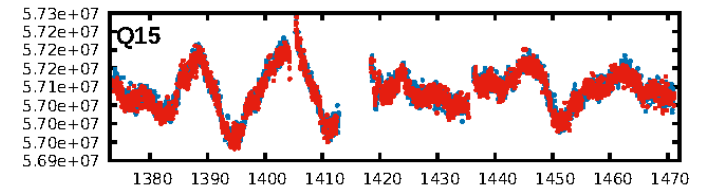
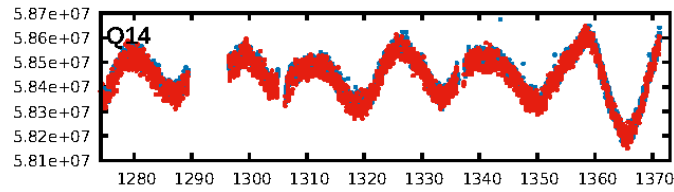
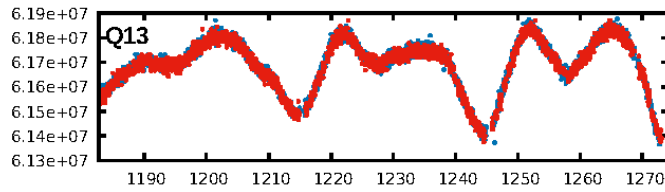
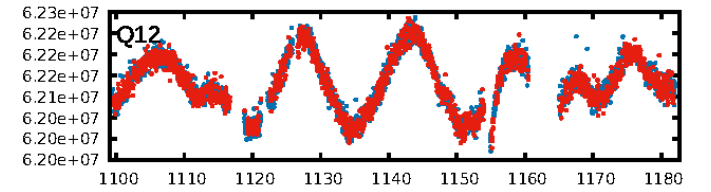
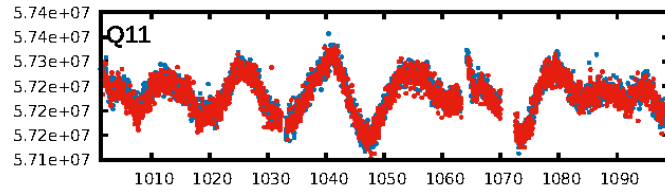
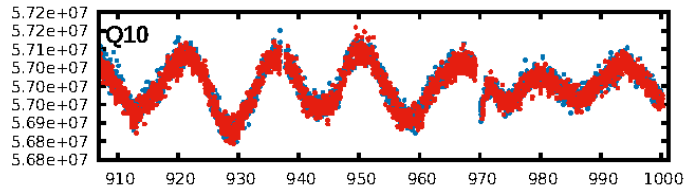
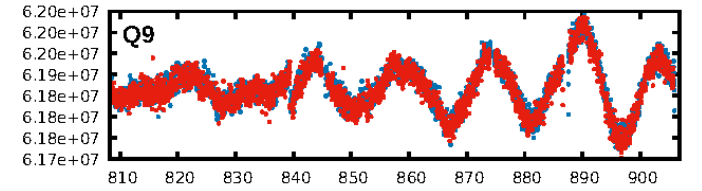
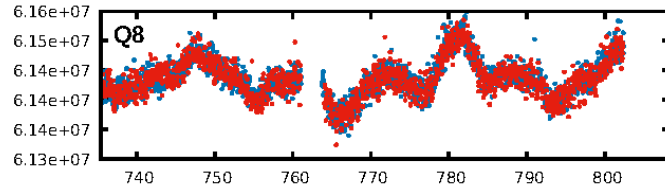
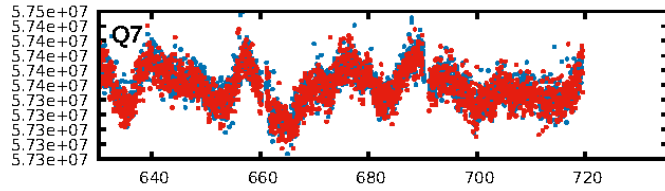
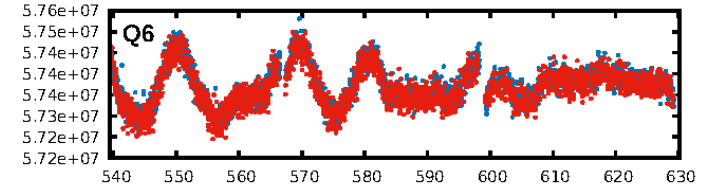
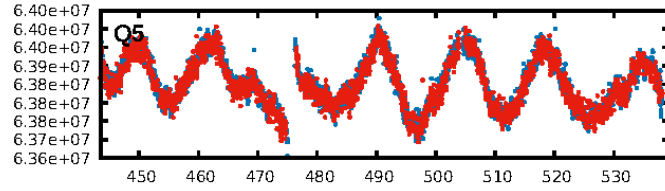
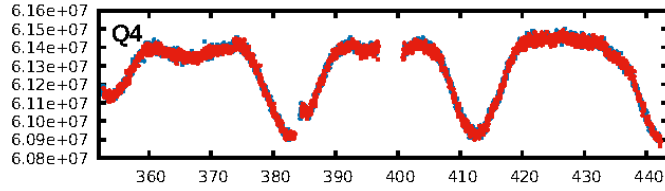
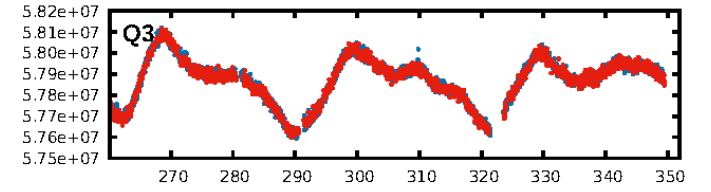
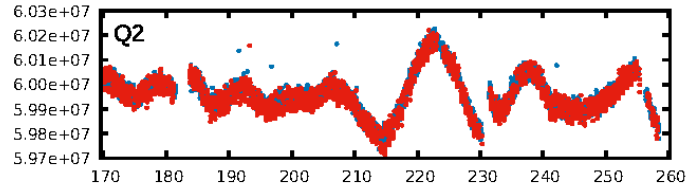
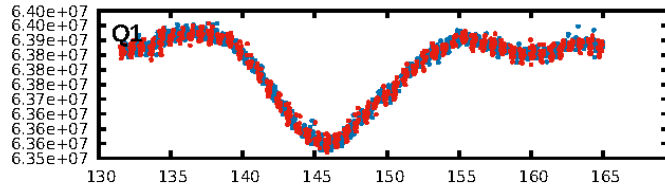
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 100.0% [504.64σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 2.41e-33
RollingBand-fgt: 1.00 [1892/1897]
GhostDiagnostic-chr: -0.4211
Centroid-sig: N/A
Centroid-so: 2.897 arcsec [3.86σ]
OotOffset-rm: 10.824 arcsec [20.60σ]
KicOffset-rm: 10.910 arcsec [21.11σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.76 [13/17]
DiffImageOverlap-fno: 1.00 [17/17]

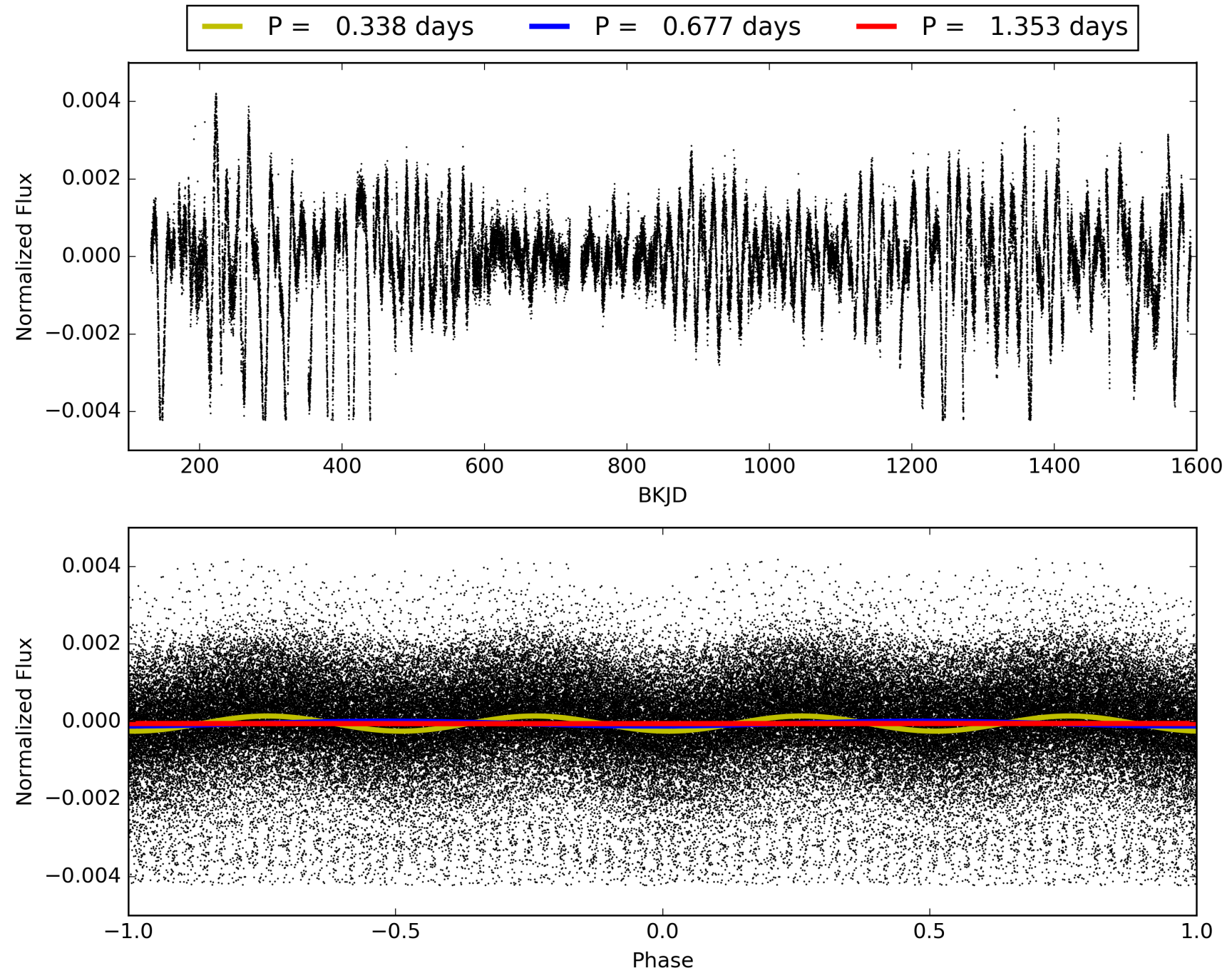
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005653693-01, PDC Light Curves

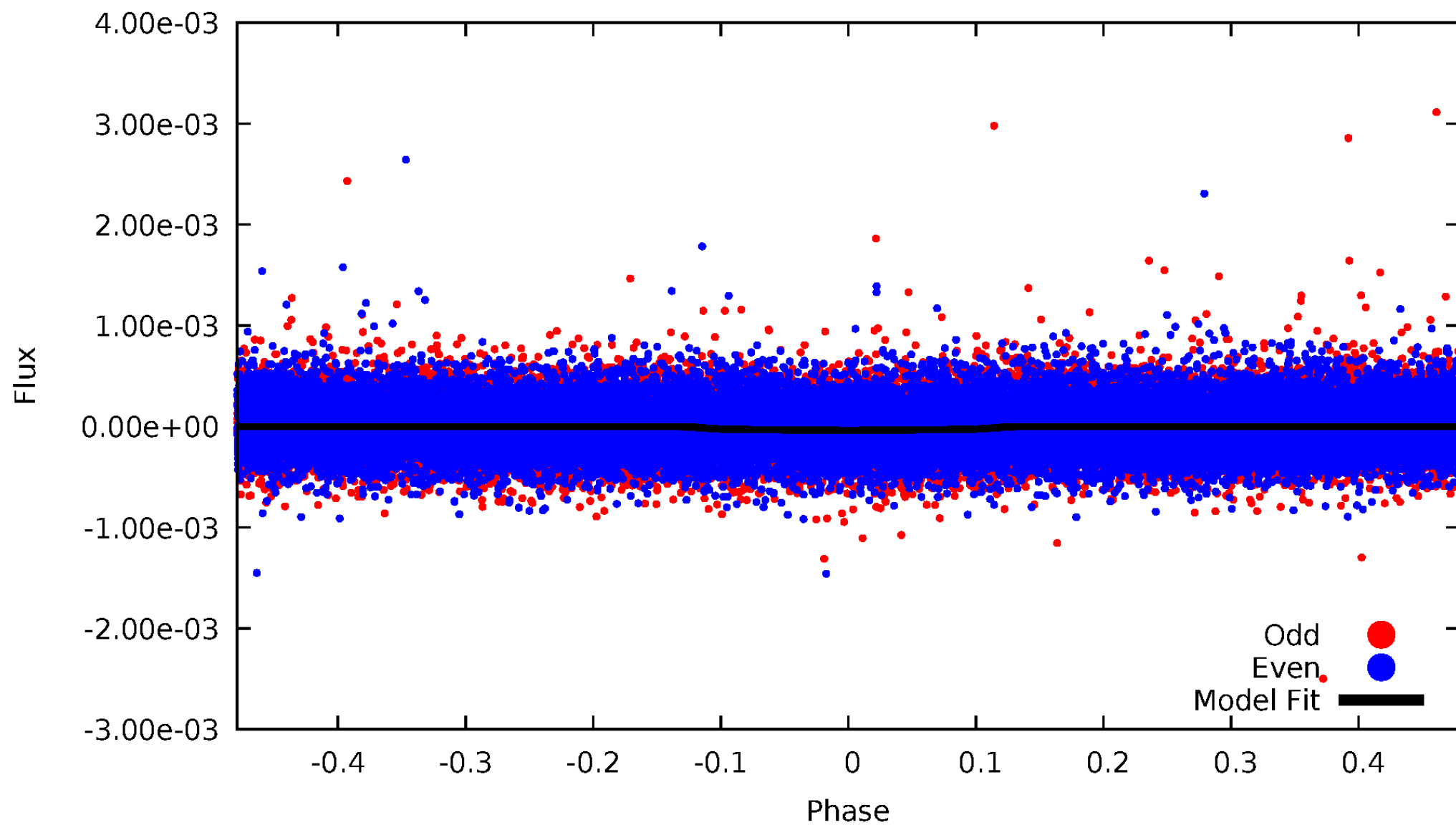


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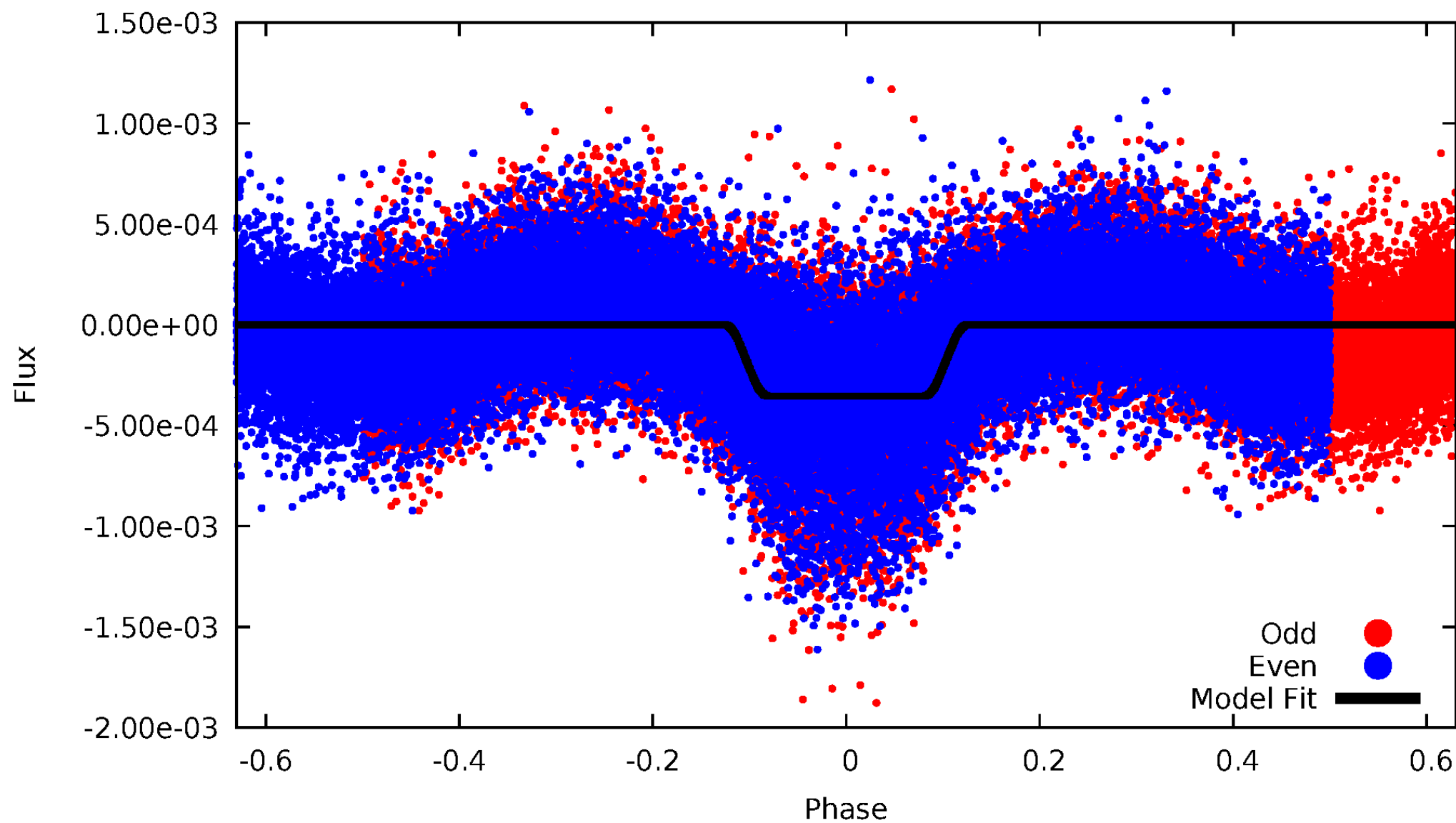
DV Odd/Even

TCE 005653693-01

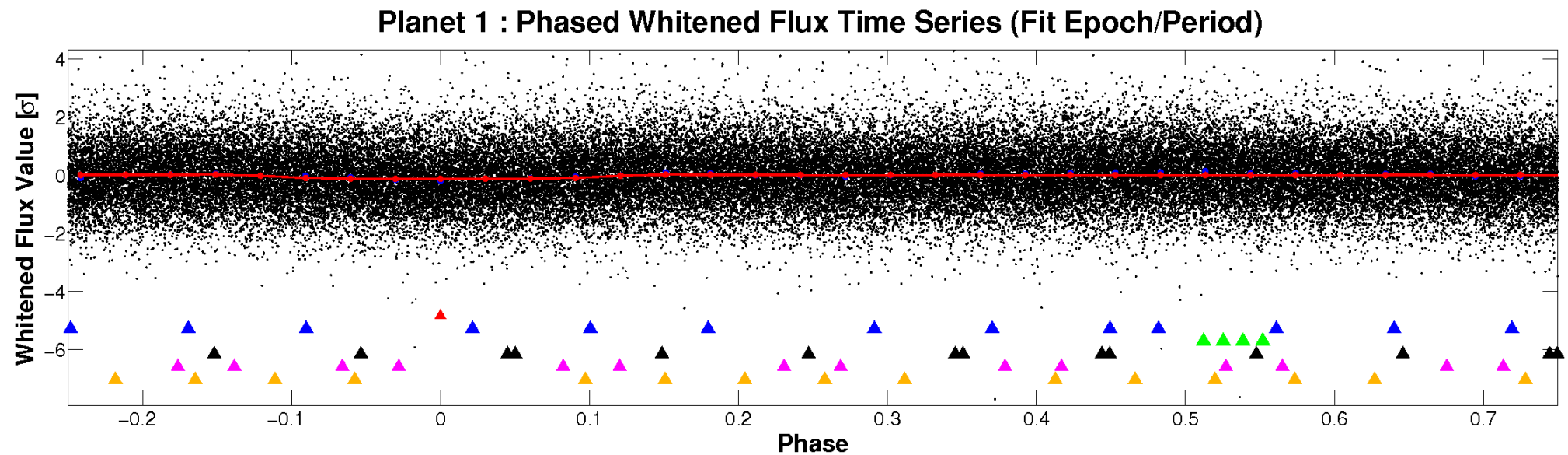
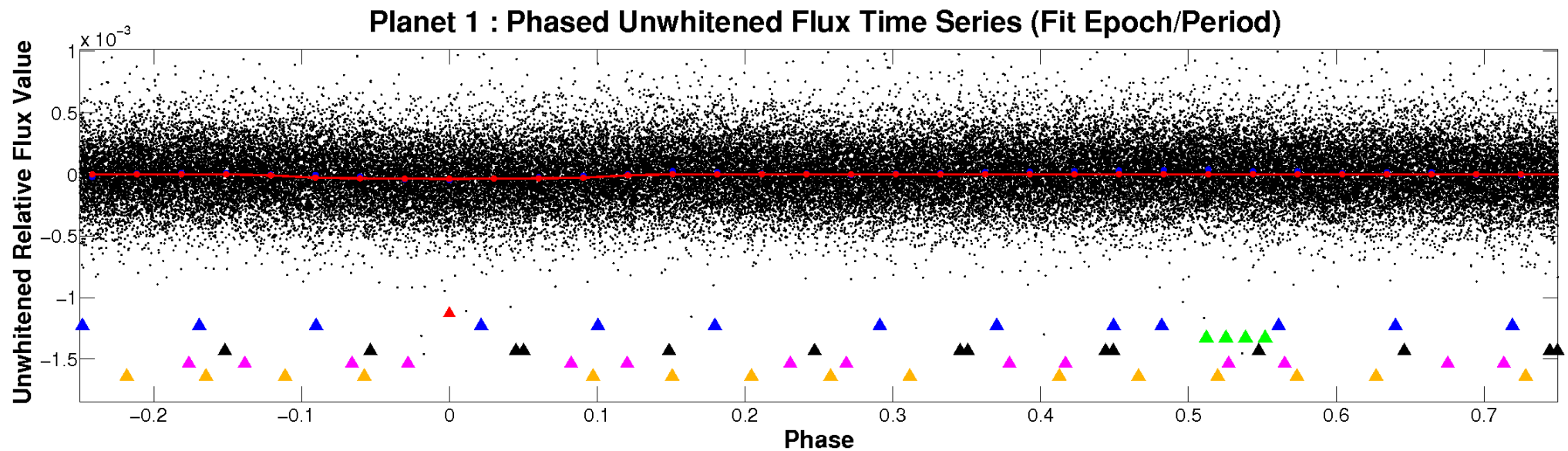


ALT Odd/Even

TCE 005653693-01

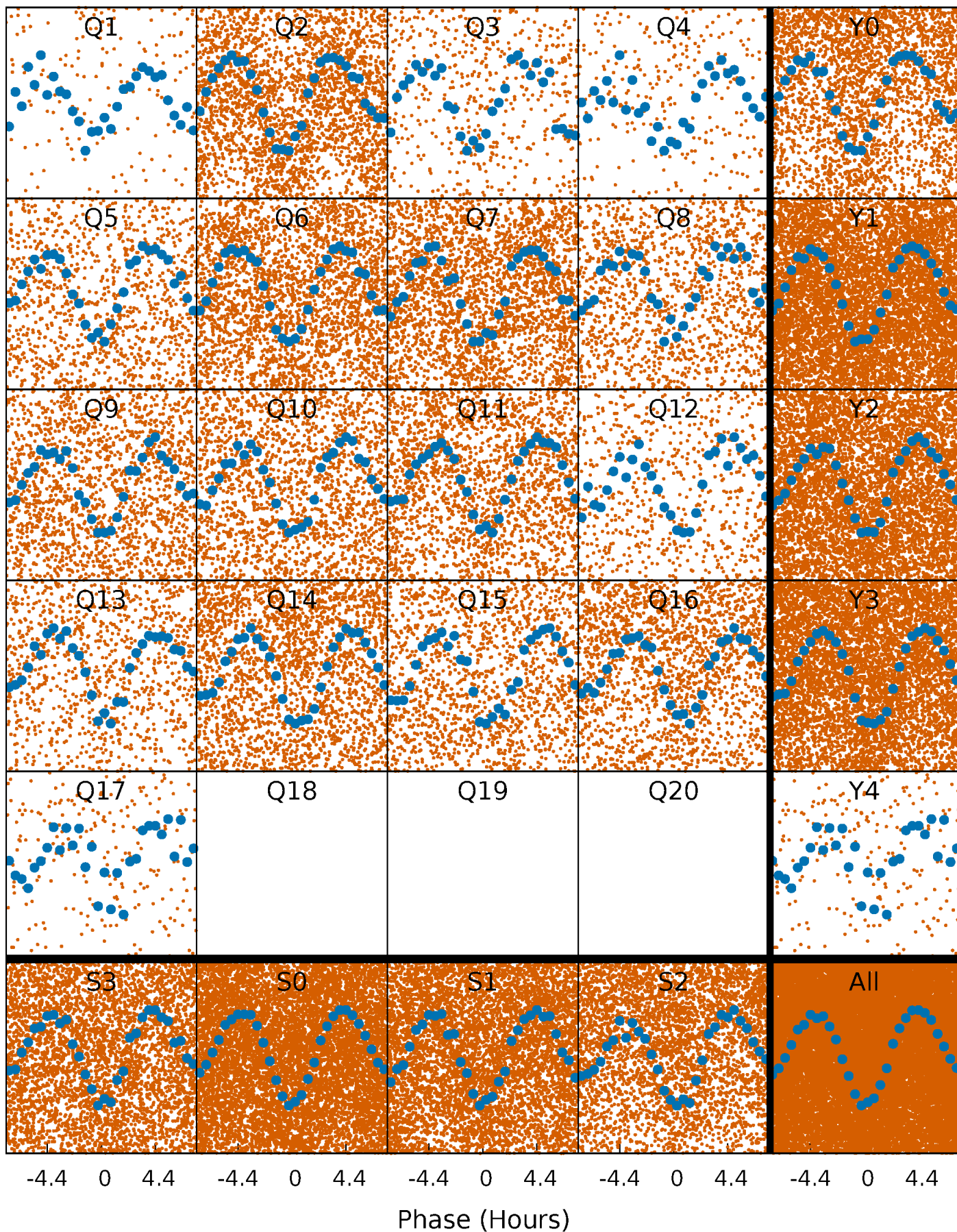


Non-Whitened Vs. Whitened Light Curve



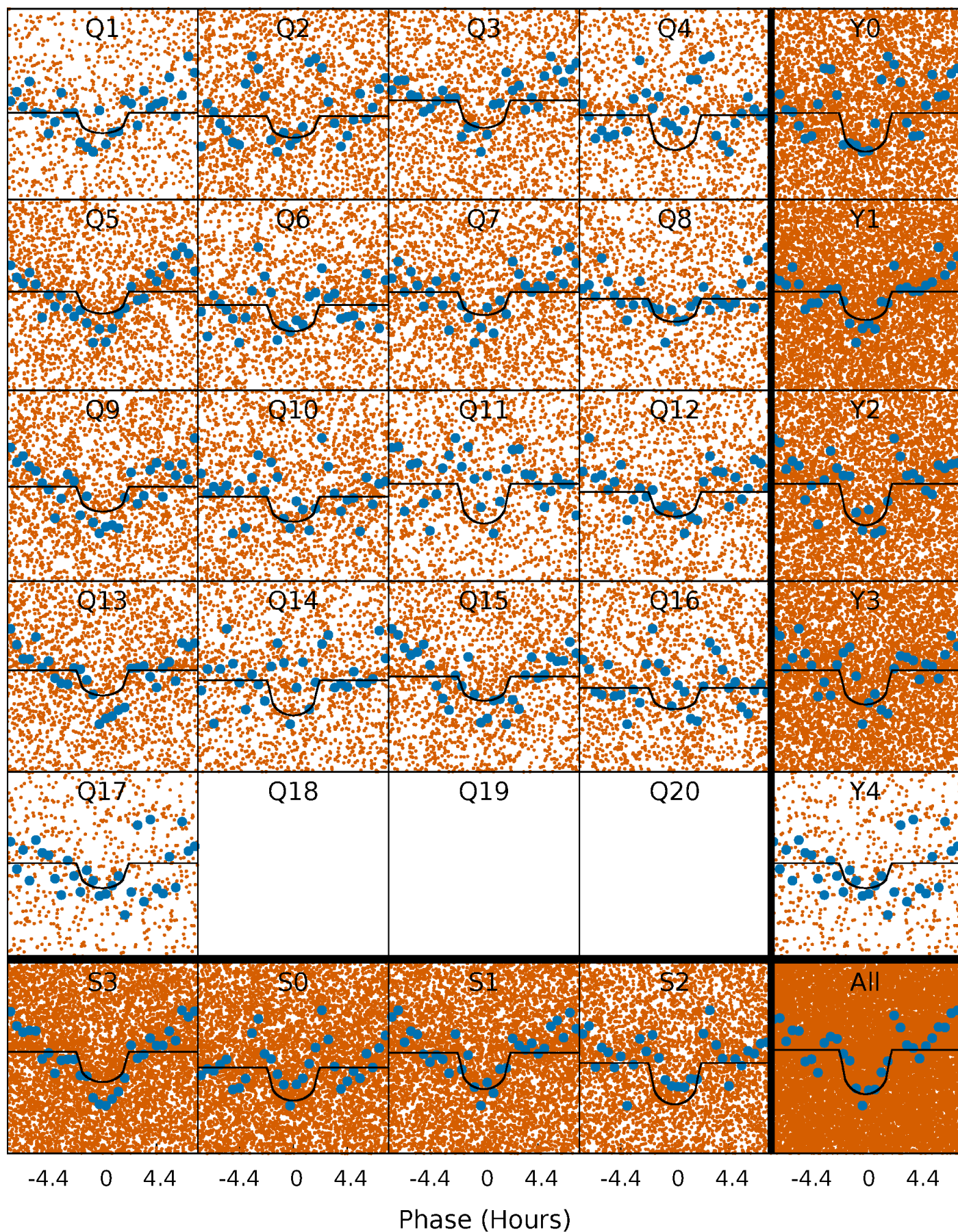
PDC Quarter-Phased Transit Curves

TCE 005653693-01 P= 0.676527 Days $T_0=131.643937$ (BKJD)



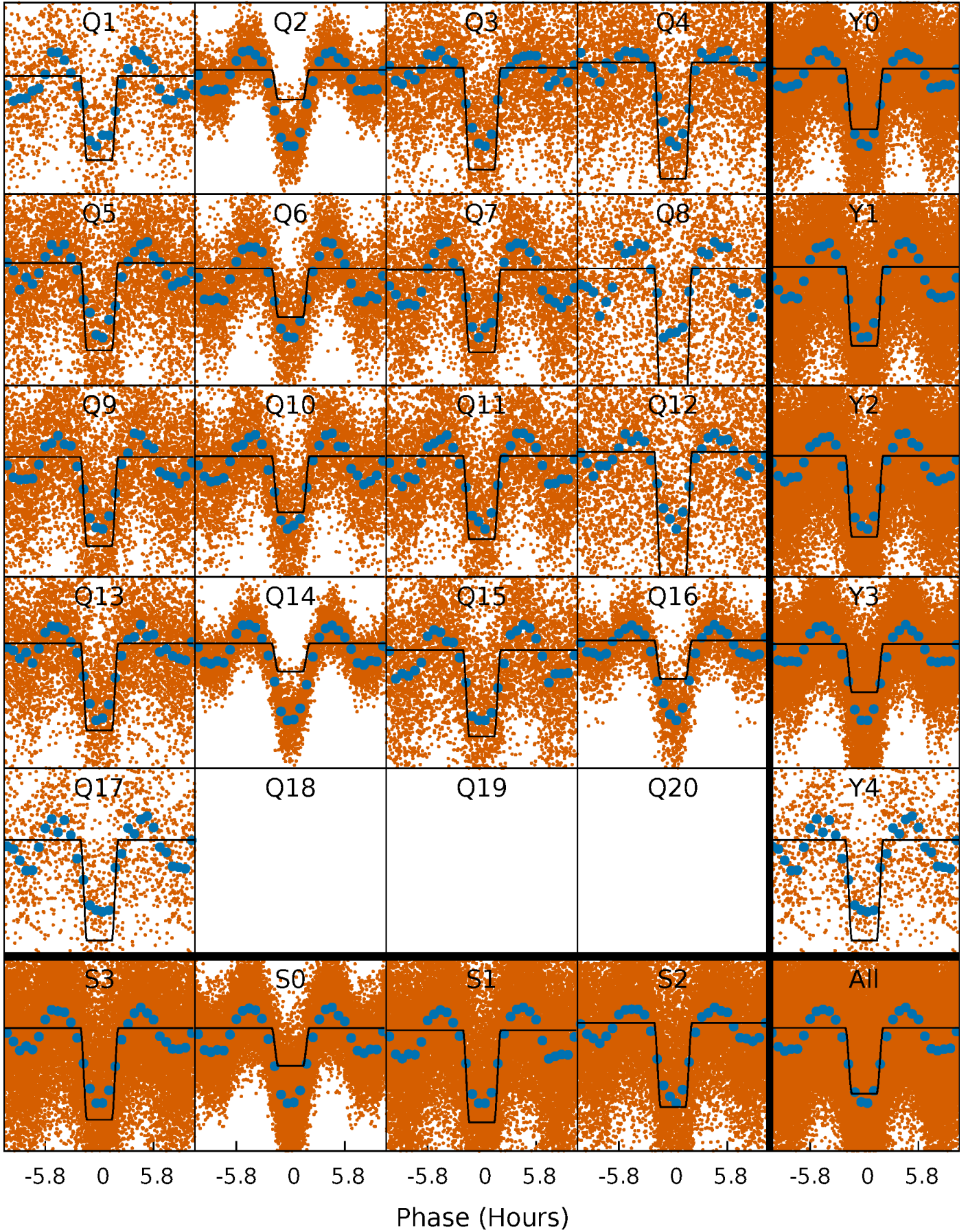
DV Quarter-Phased Transit Curves

TCE 005653693-01 P= 0.676527 Days $T_0=131.643937$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

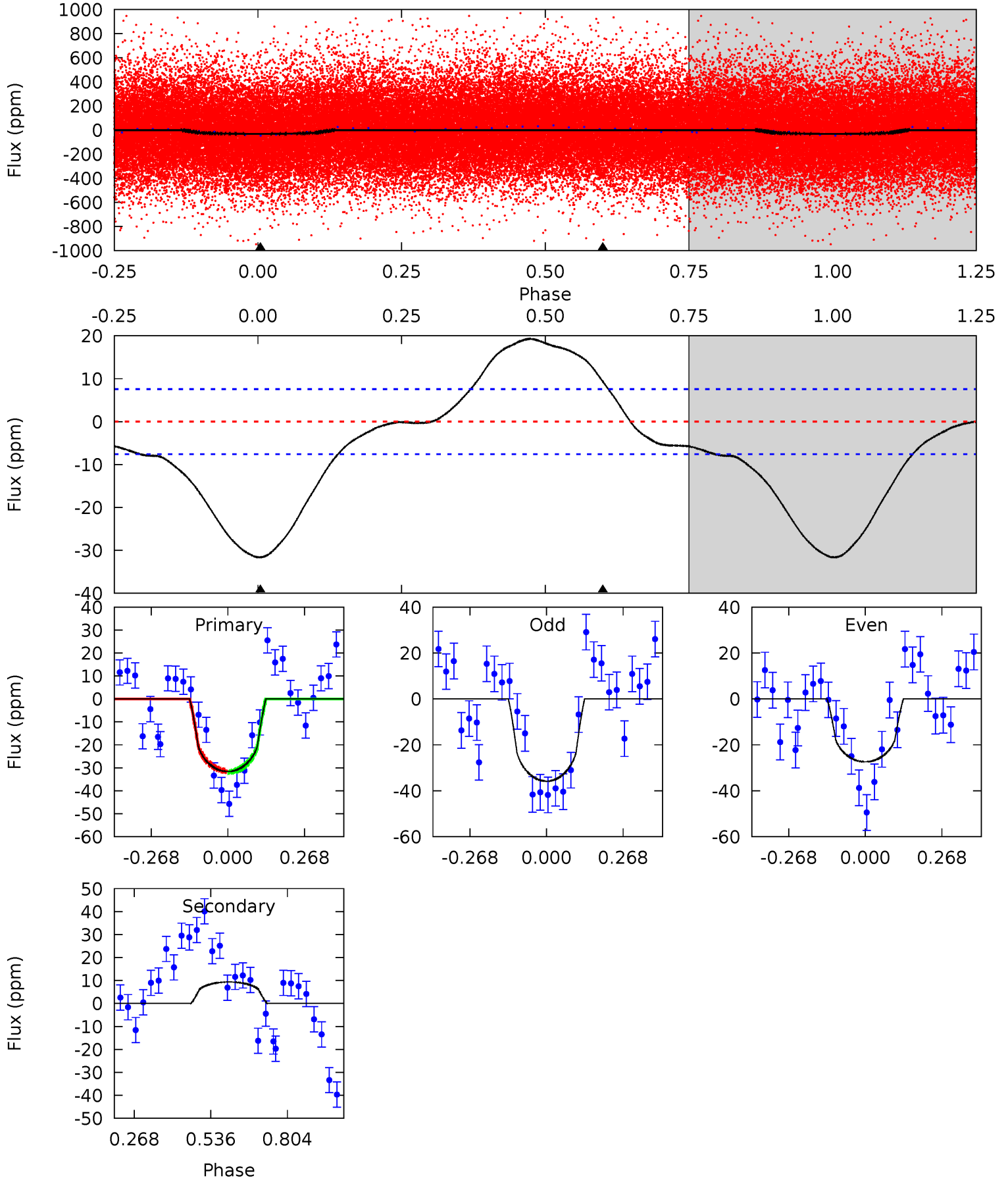
TCE 005653693-01 P= 0.676559 Days $T_0=131.616573$ (BKJD)



DV Model-Shift Uniqueness Test

005653693-01, P = 0.676527 Days, E = 130.967410 Days

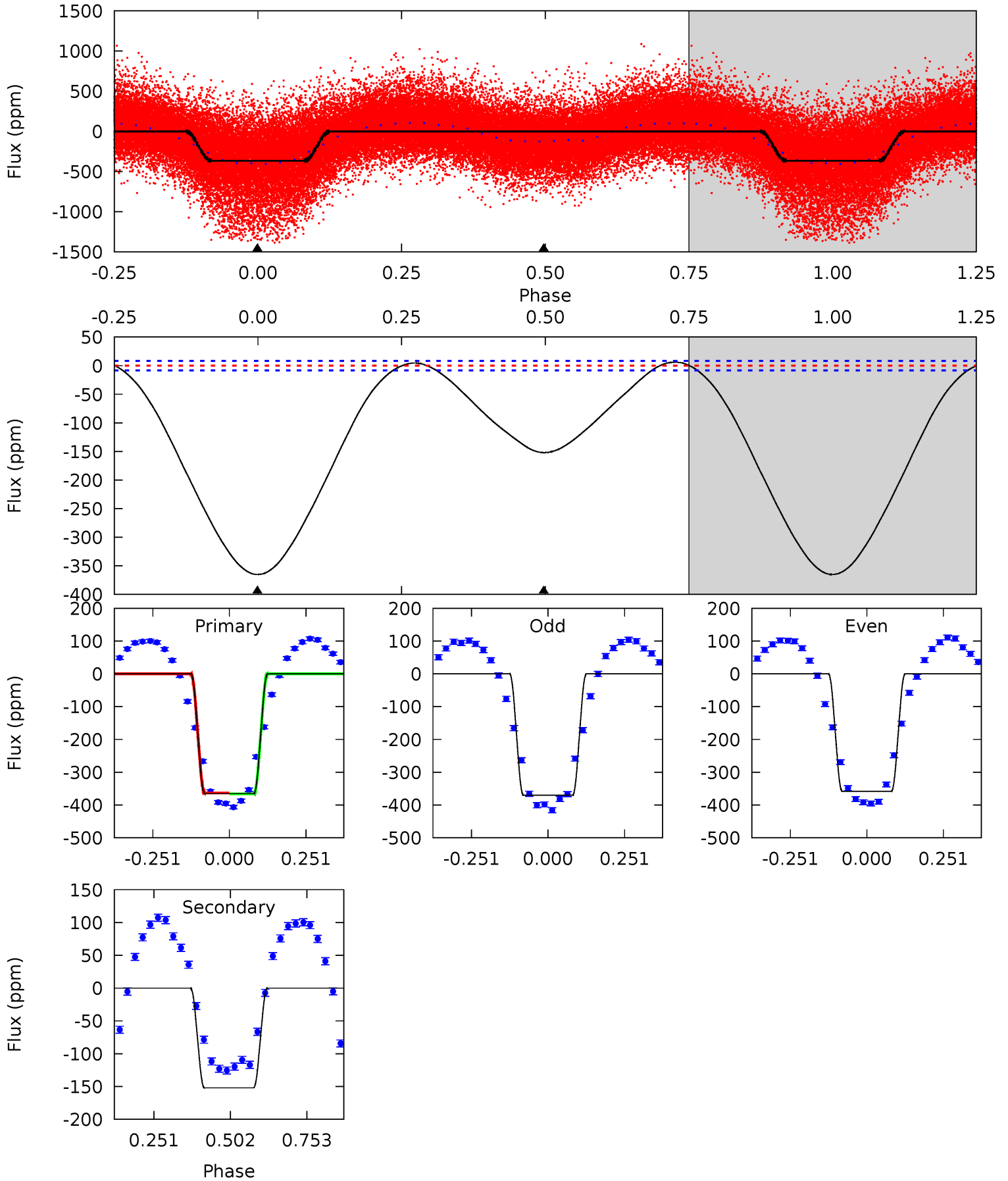
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.2	-5.38	0	0	4.35	1.11	0.91	18.2	18.2	-5.38	-5.38	2.44	1.04	0.38	0.12



Alt Model-Shift Uniqueness Test

005653693-01, P = 0.676559 Days, E = 130.940014 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
192.0	79.9	0	0	4.37	1.15	3.54	192.0	192.0	79.9	79.9	3.15	1.19	0.02	0.62



Stellar Parameters For KIC 005653693

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5127^{+153}_{-138}	$4.558^{+0.084}_{-0.052}$	$-0.420^{+0.350}_{-0.300}$	$0.724^{+0.074}_{-0.074}$	$0.690^{+0.095}_{-0.044}$	$2.565^{+0.853}_{-0.446}$
	+3%/-3%	+2%/-1%	+83%/-71%	+10%/-10%	+14%/-6%	+33%/-17%
Source	PHO1	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 005653693-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	9 ± 2	$0.45^{+0.29}_{-0.22}$	2317^{+87}_{-91}	-4019^{+536}_{-1227}	$-4.310^{+2.660}_{-14.050}$
Alt.	-152 ± 2	$1.48^{+0.28}_{-0.32}$	2314^{+90}_{-89}	4297^{+411}_{-297}	$6.979^{+4.042}_{-2.123}$

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 $A_{obs} \gg 1.0$

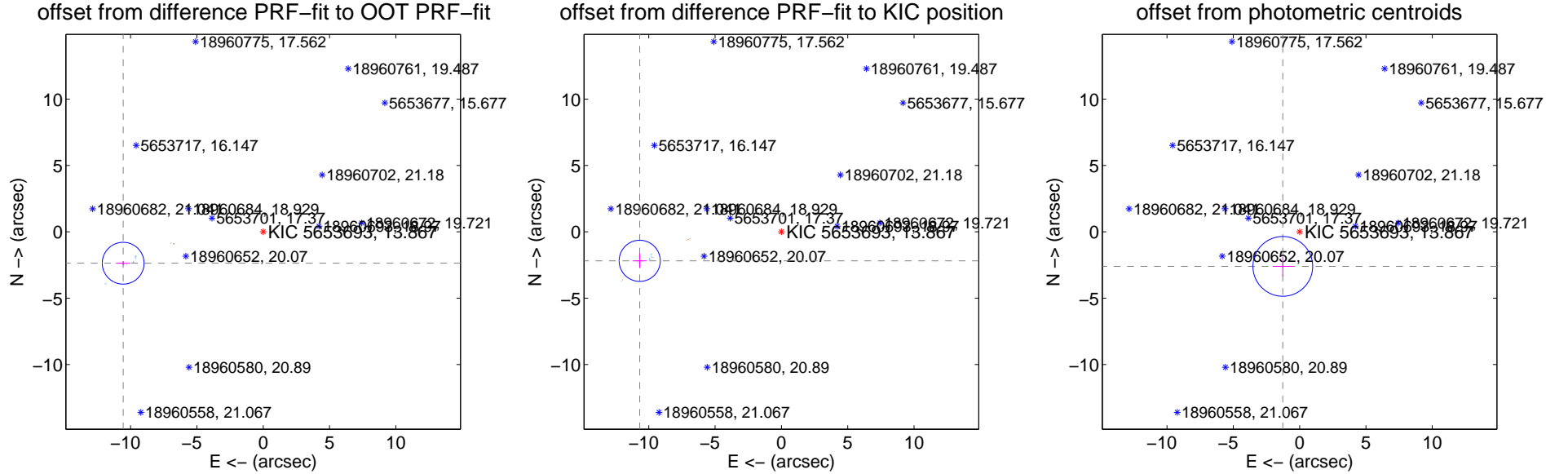
DV Centroid Data

Supplemental centroid analysis for 005653693-01. Kepler magnitude: 13.87. Transit SNR 12.91

There are 13 quarters with good PRF difference image offsets

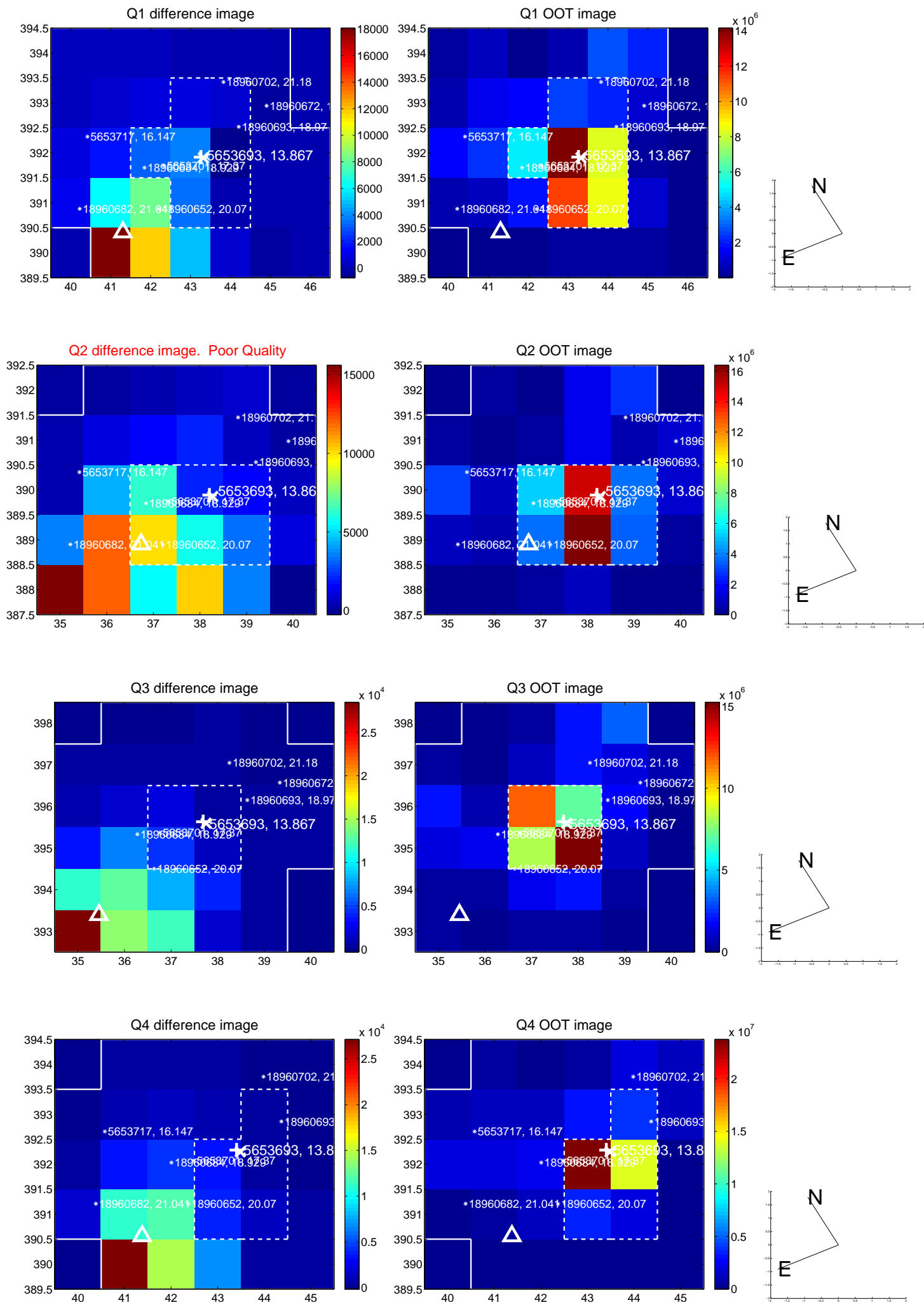
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.824 ± 0.525	20.60	10.562 ± 0.538	-2.365 ± 0.143
PRF-fit source offset from KIC position	10.910 ± 0.517	21.11	10.689 ± 0.516	-2.185 ± 0.540
photometric centroid source offset	2.90 ± 0.75	3.86	1.27 ± 0.76	-2.60 ± 0.75

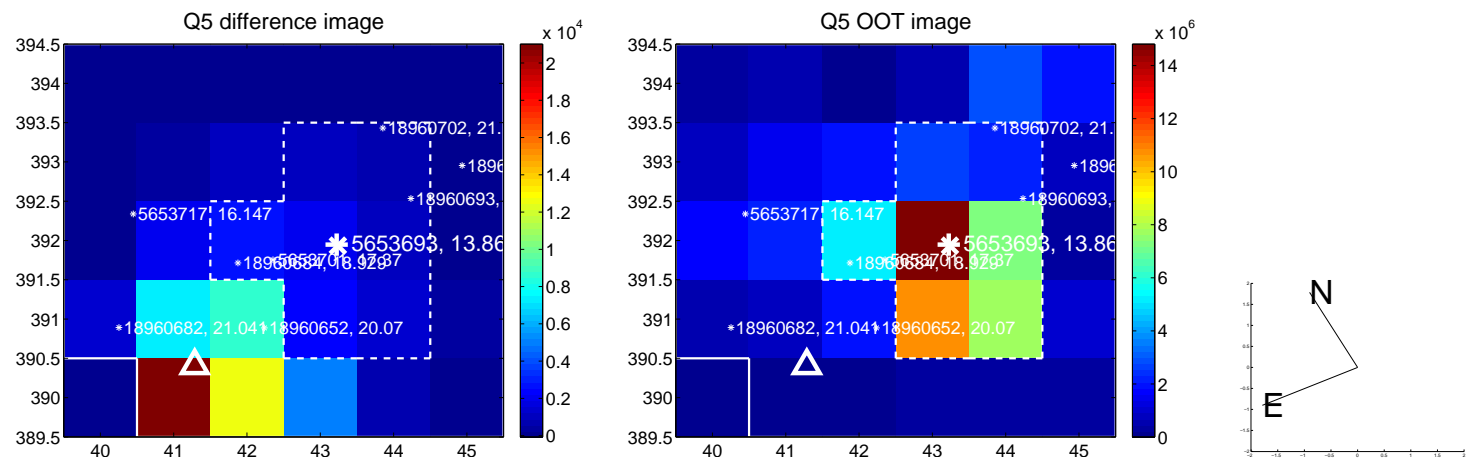


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- 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.

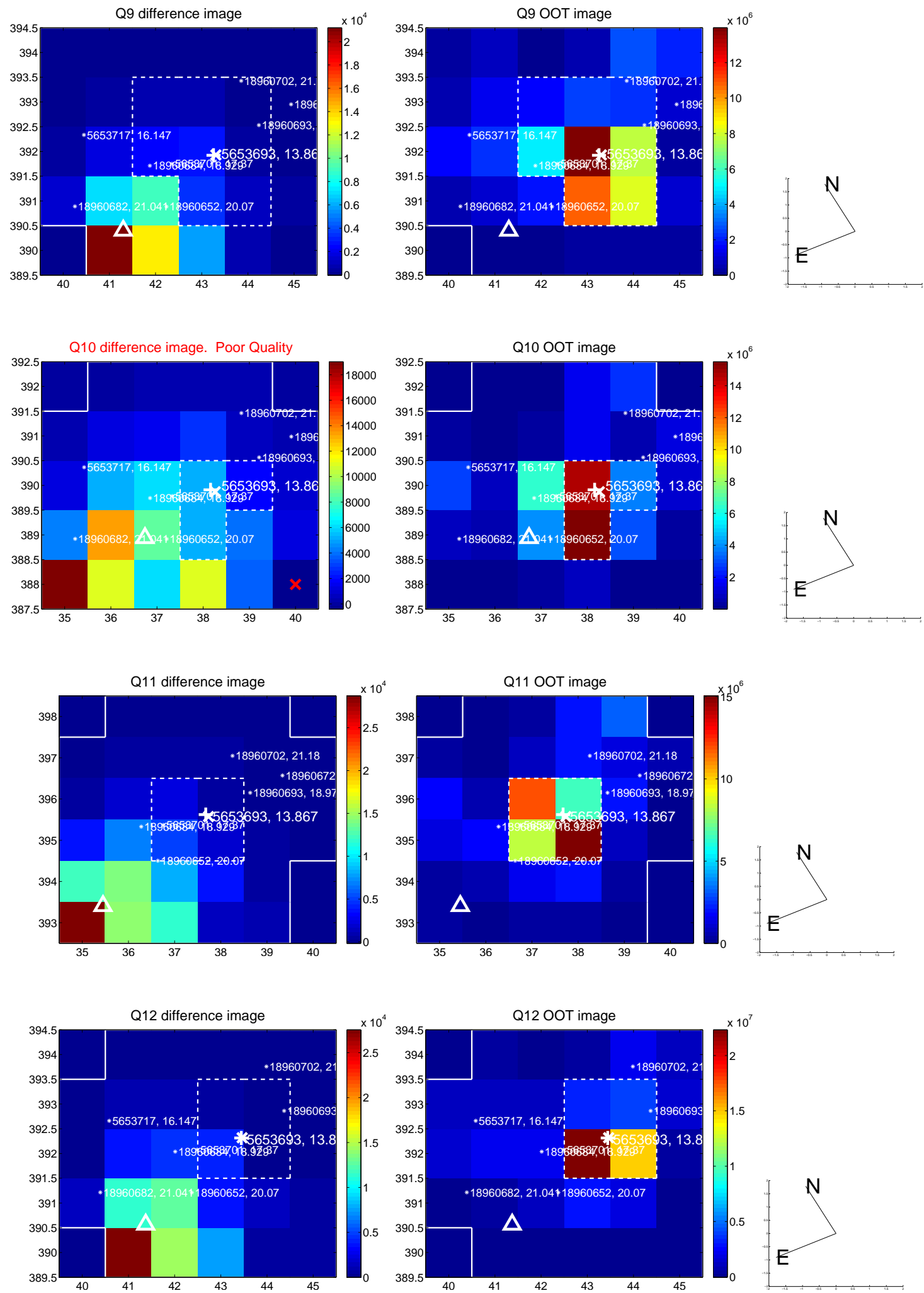
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



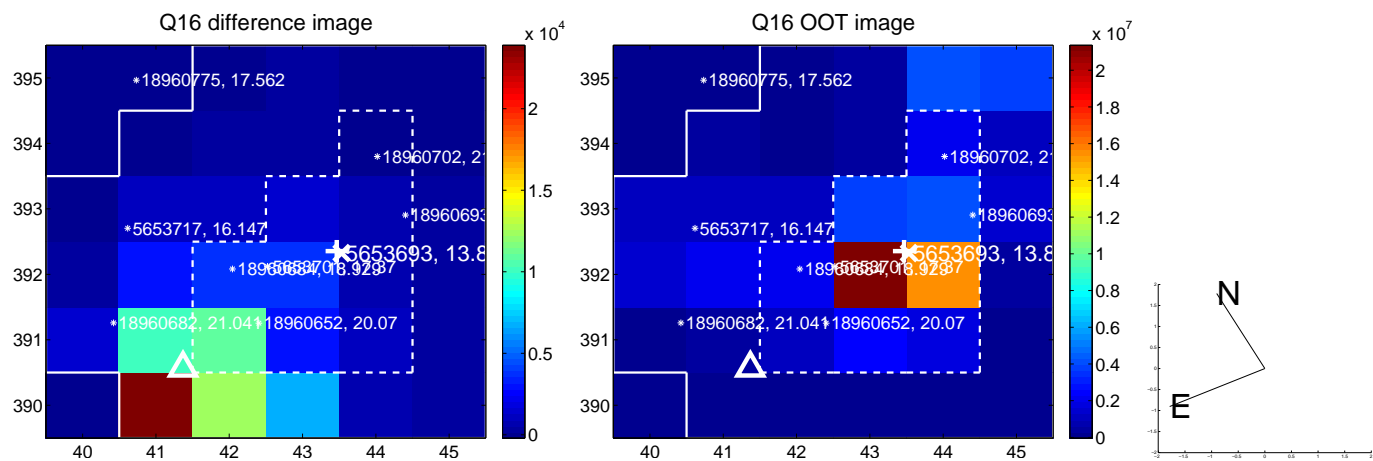
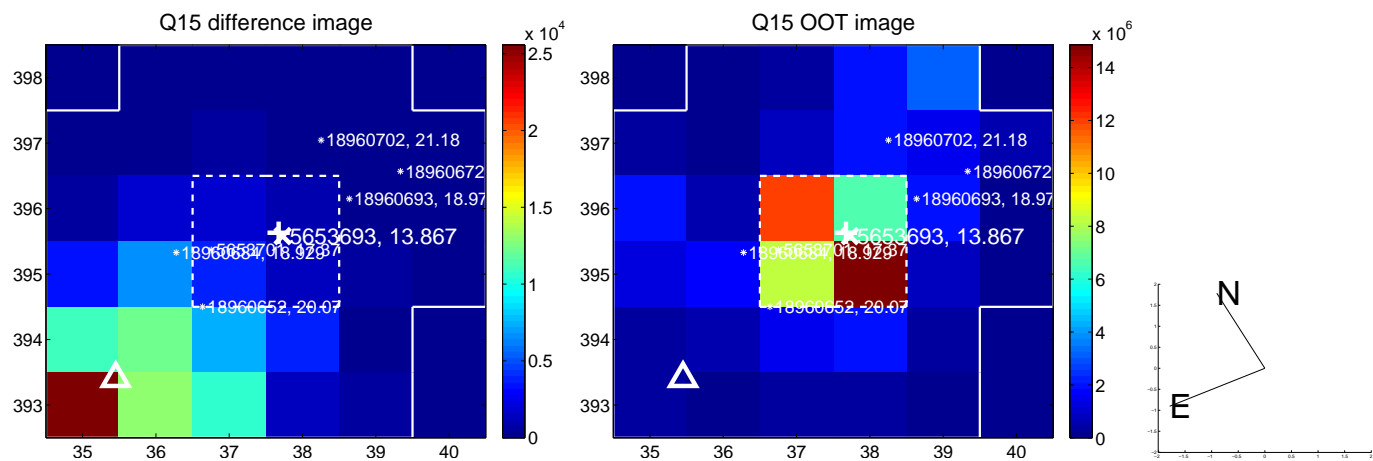
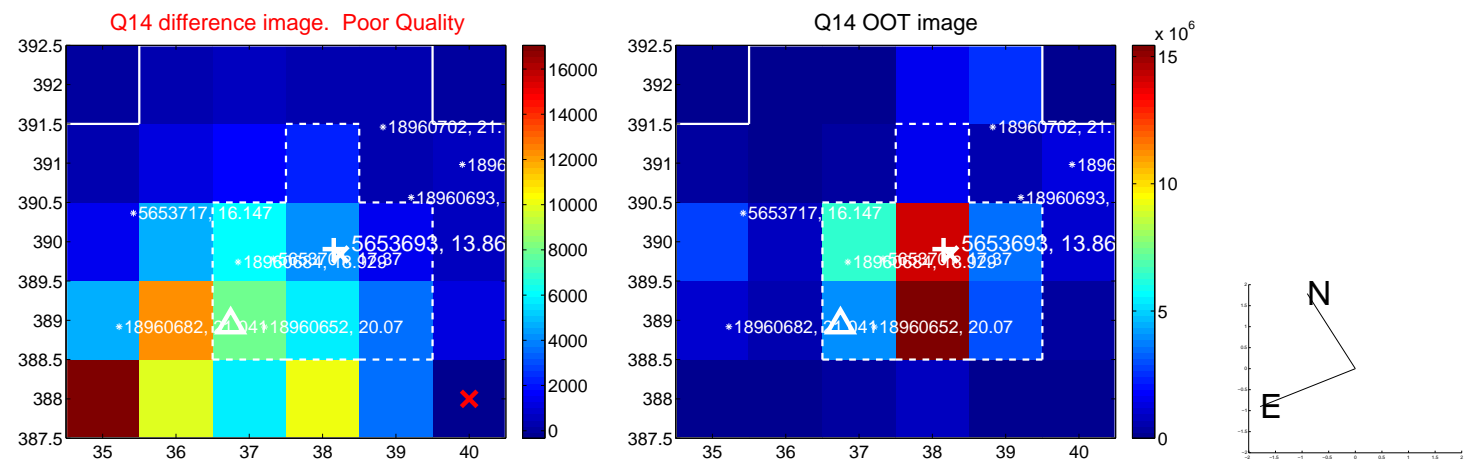
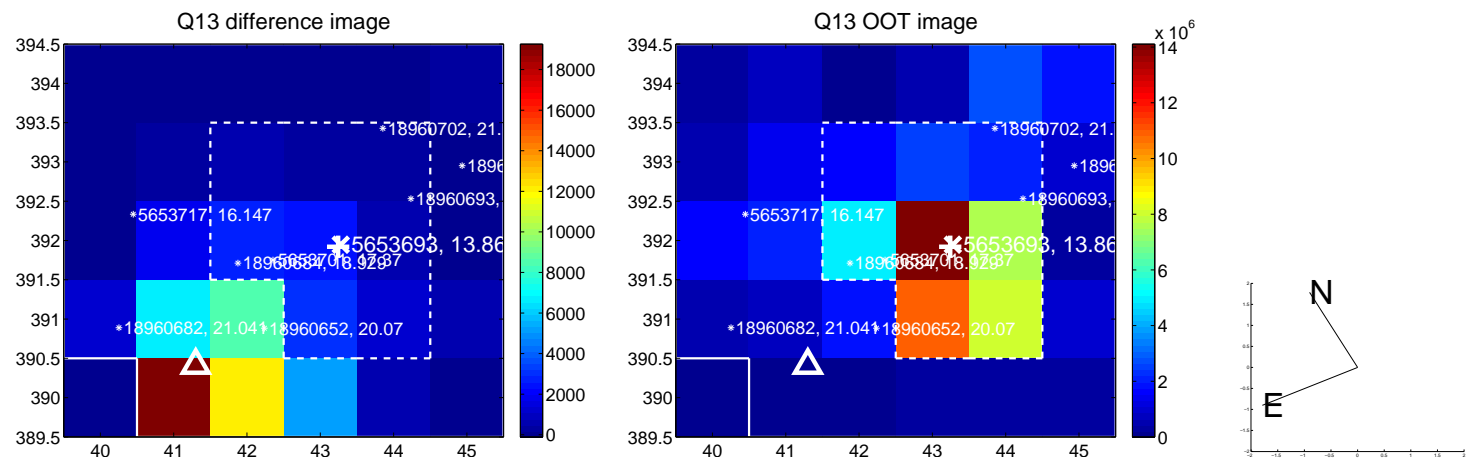
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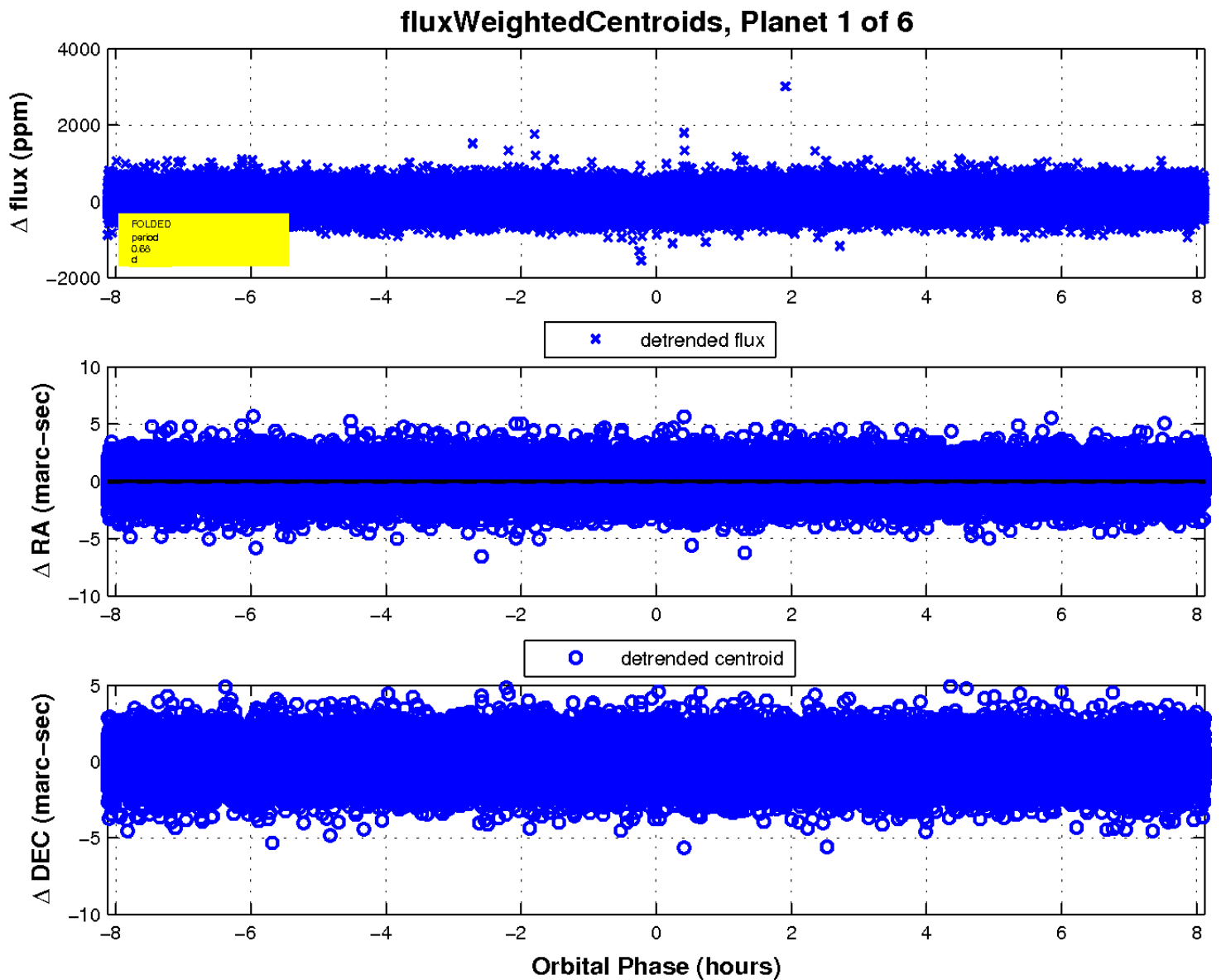
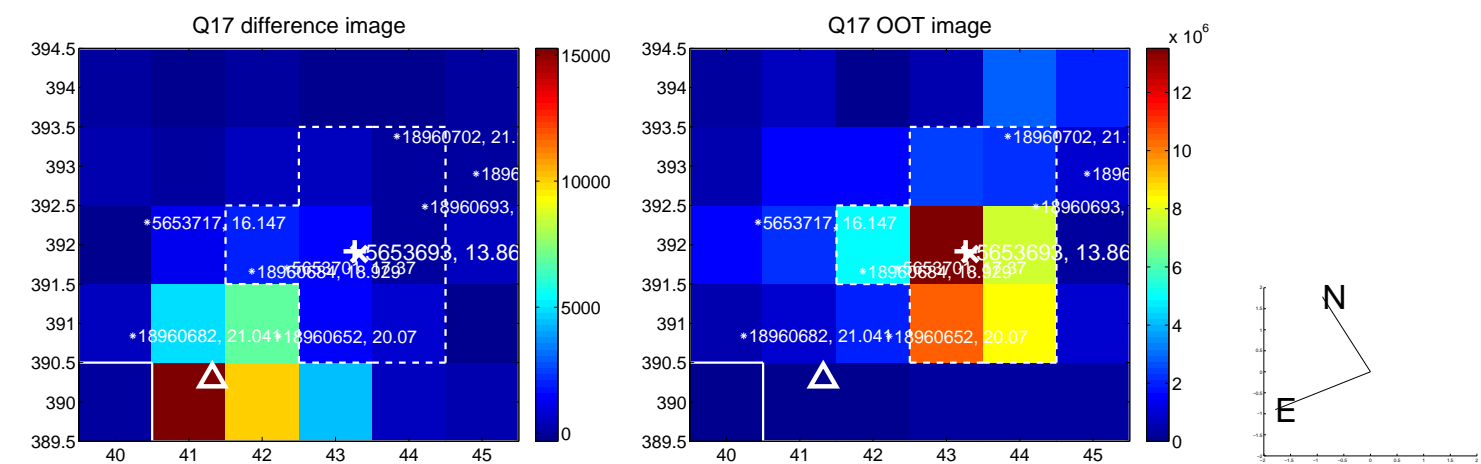
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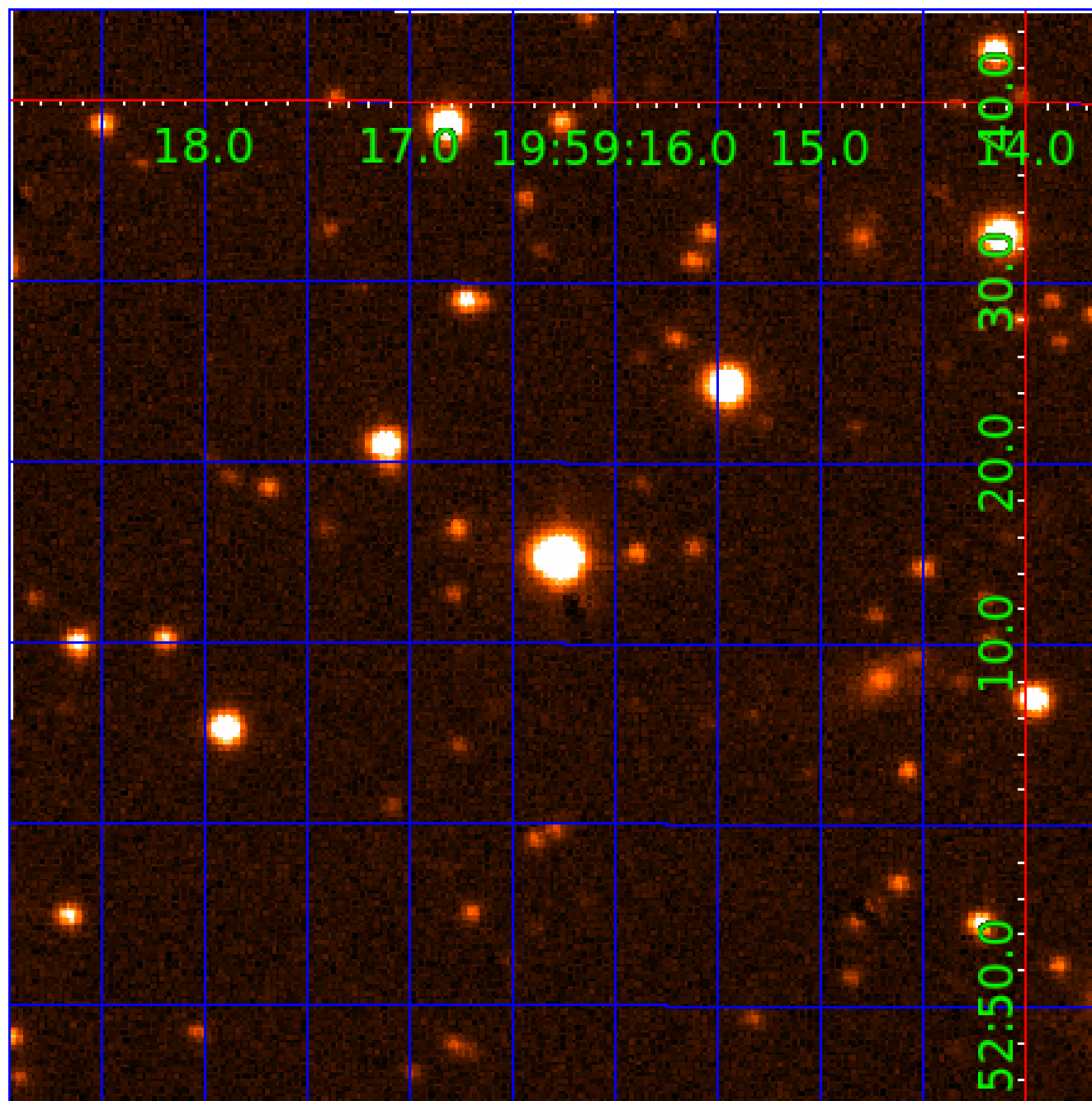


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UKIRT Image

Declination



KIC 005653693

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005653693-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
005653693-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_TRACKER—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST
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N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

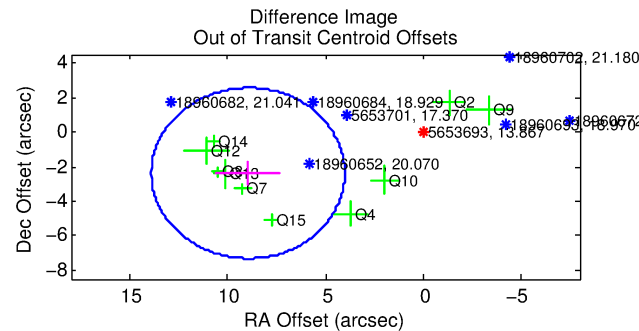
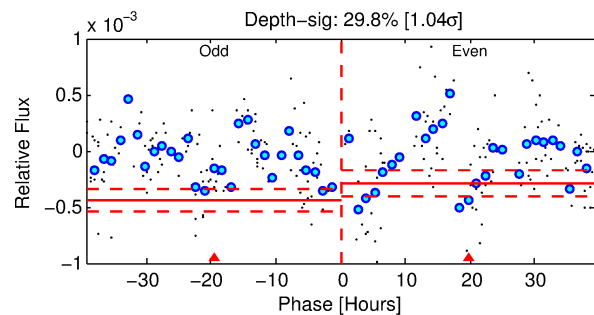
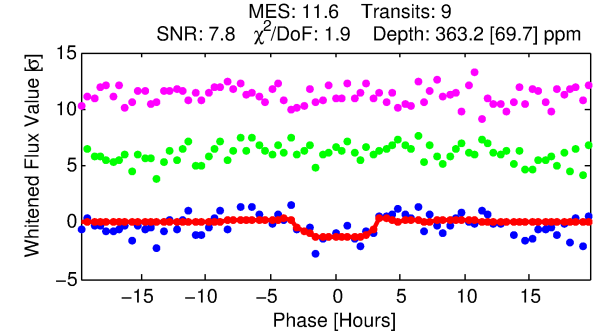
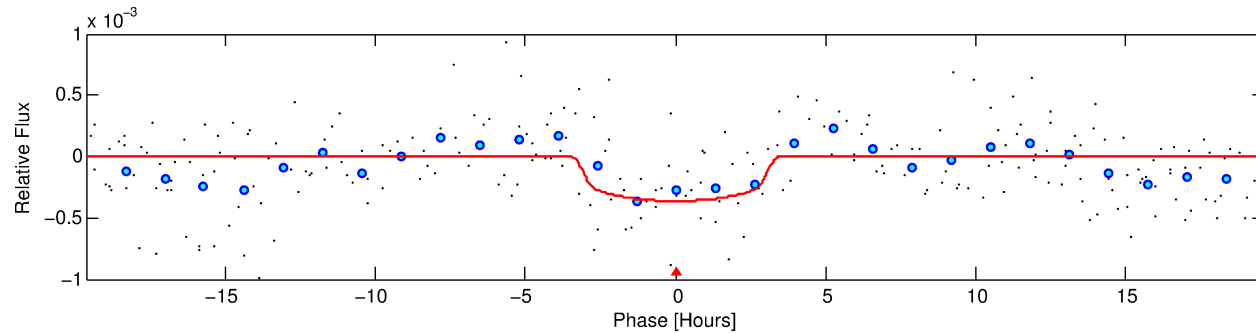
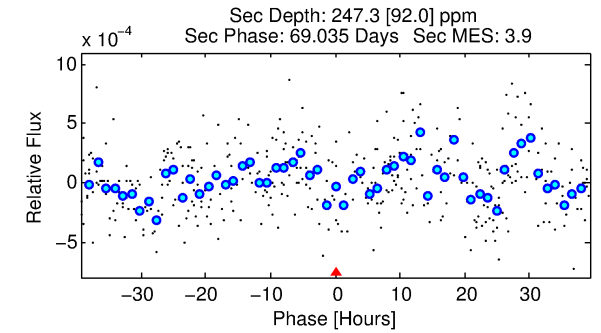
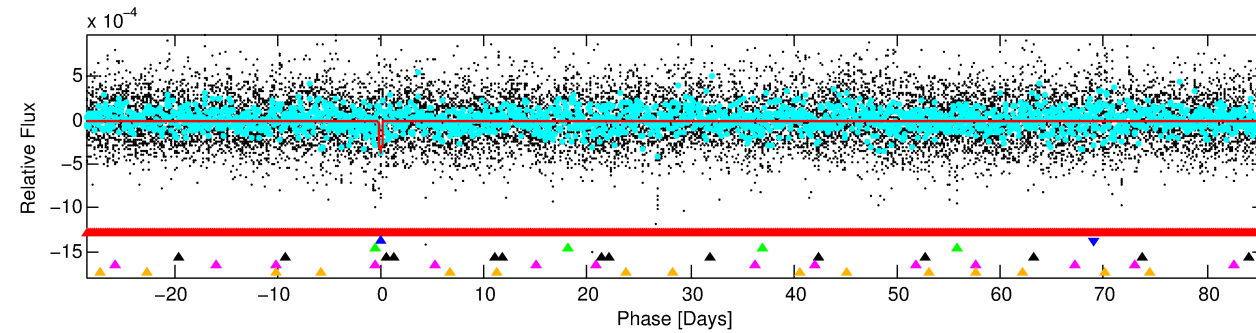
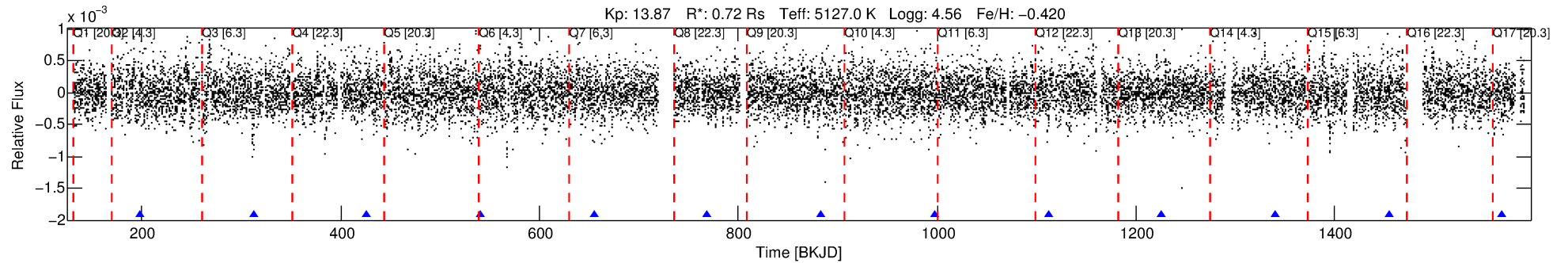
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005653693-02

No Significant Match Found

DV One-Page Summary

KIC: 5653693 Candidate: 2 of 6 Period: 114.151 d



DV Fit Results:

Period = 114.15053 [0.00320] d
Epoch = 198.4301 [0.0246] BKJD
Rp/R* = 0.0195 [0.0176]
a/R* = 83.25 [295.41]
b = 0.81 [1.57]
Seff = 1.96 [0.37]
Teff = 302 [14] K
Rp = 1.54 [1.40] Re
a = 0.4072 [0.0382] AU
Ag = 9472.40 [17525.91] [0.54 σ]
Teffp = 4600 [2126] K [2.02 σ]

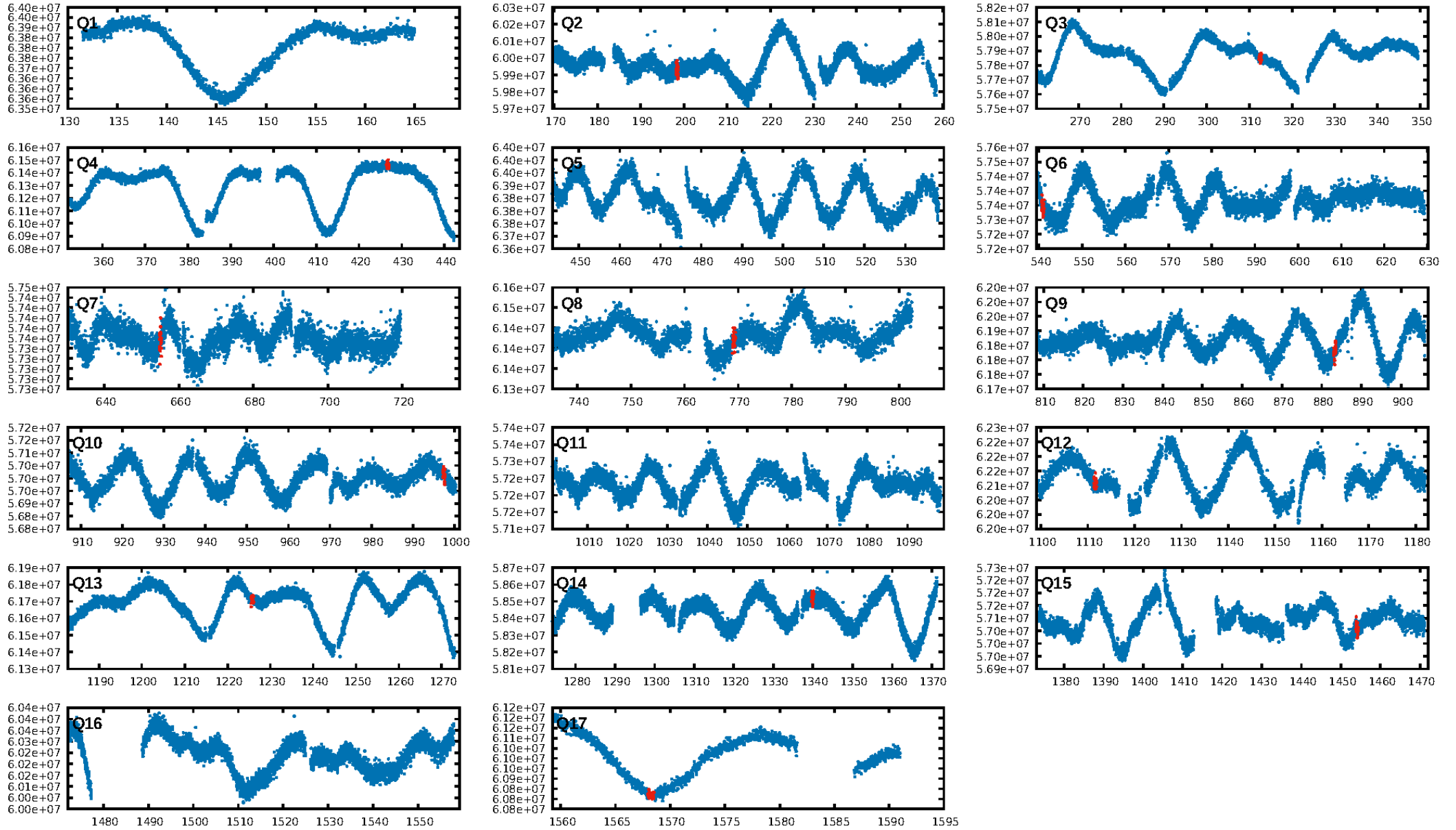
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [22.48 σ]
LongPeriod-sig: 100.0% [691.04 σ]
ModelChiSquare2-sig: 1.4%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 4.90e-15
RollingBand-fgt: 1.00 [8/8]
GhostDiagnostic-chr: 448.1
Centroid-sig: N/A
Centroid-so: 0.756 arcsec [0.95 σ]
OotOffset-rm: 9.263 arcsec [5.63 σ]
KicOffset-rm: 9.410 arcsec [6.36 σ]
OotOffset-st: 3/2/3/2 [10]
KicOffset-st: 3/2/3/2 [10]
DiffImageQuality-fgm: 0.00 [0/10]
DiffImageOverlap-fno: 0.00 [0/12]

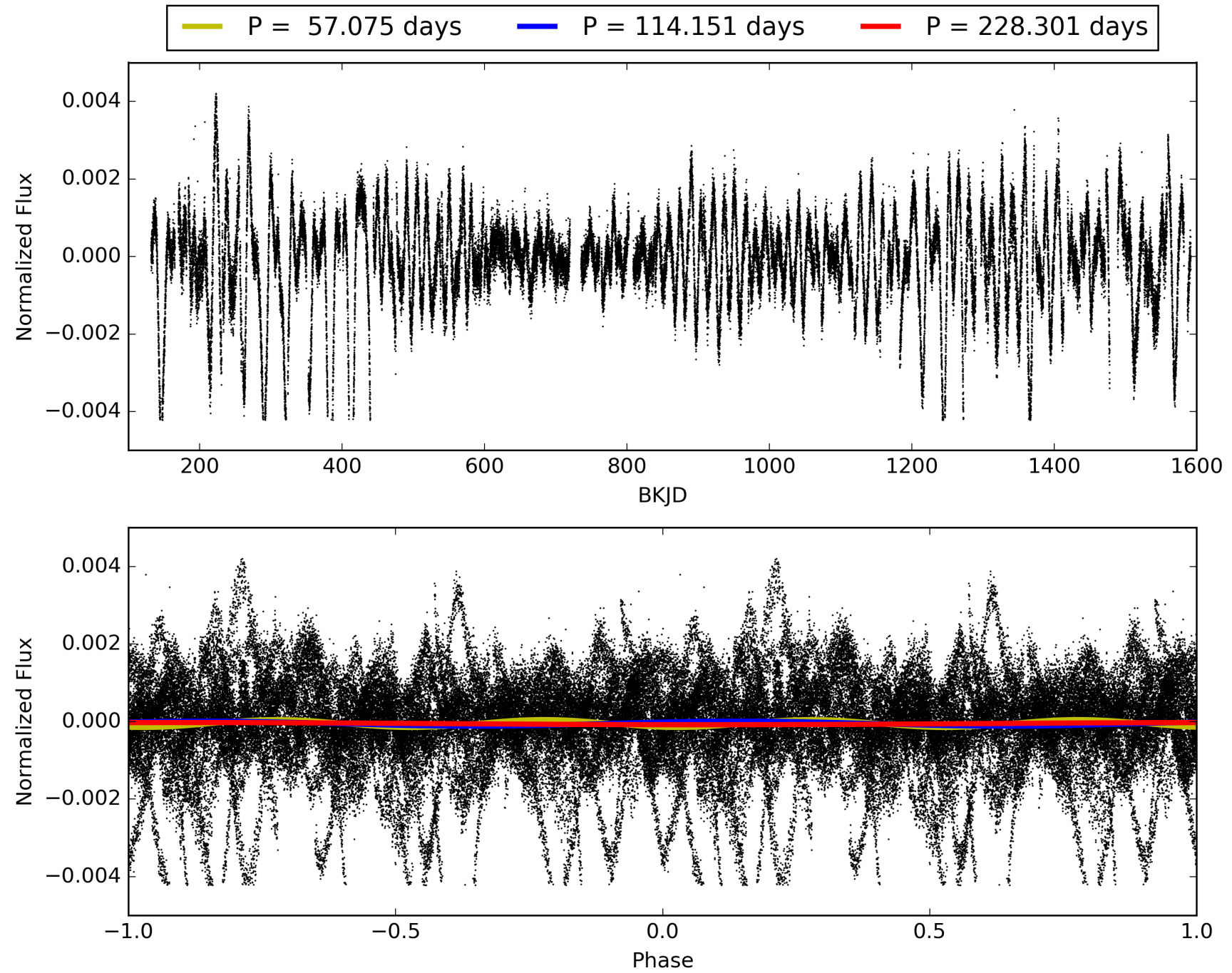
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 04:24:56 Z

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

TCE 005653693-02, PDC Light Curves

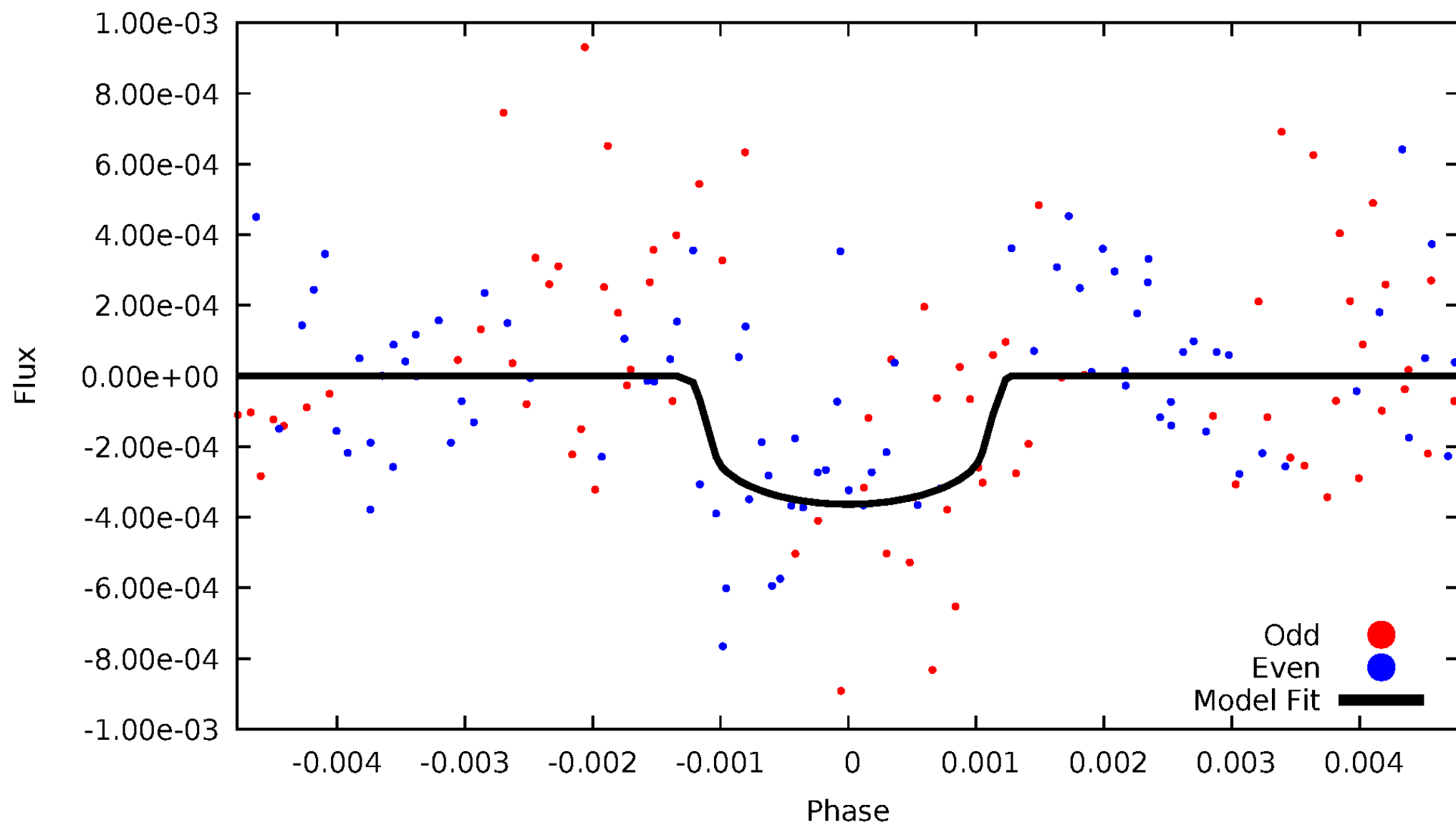


TCE 005653693-02



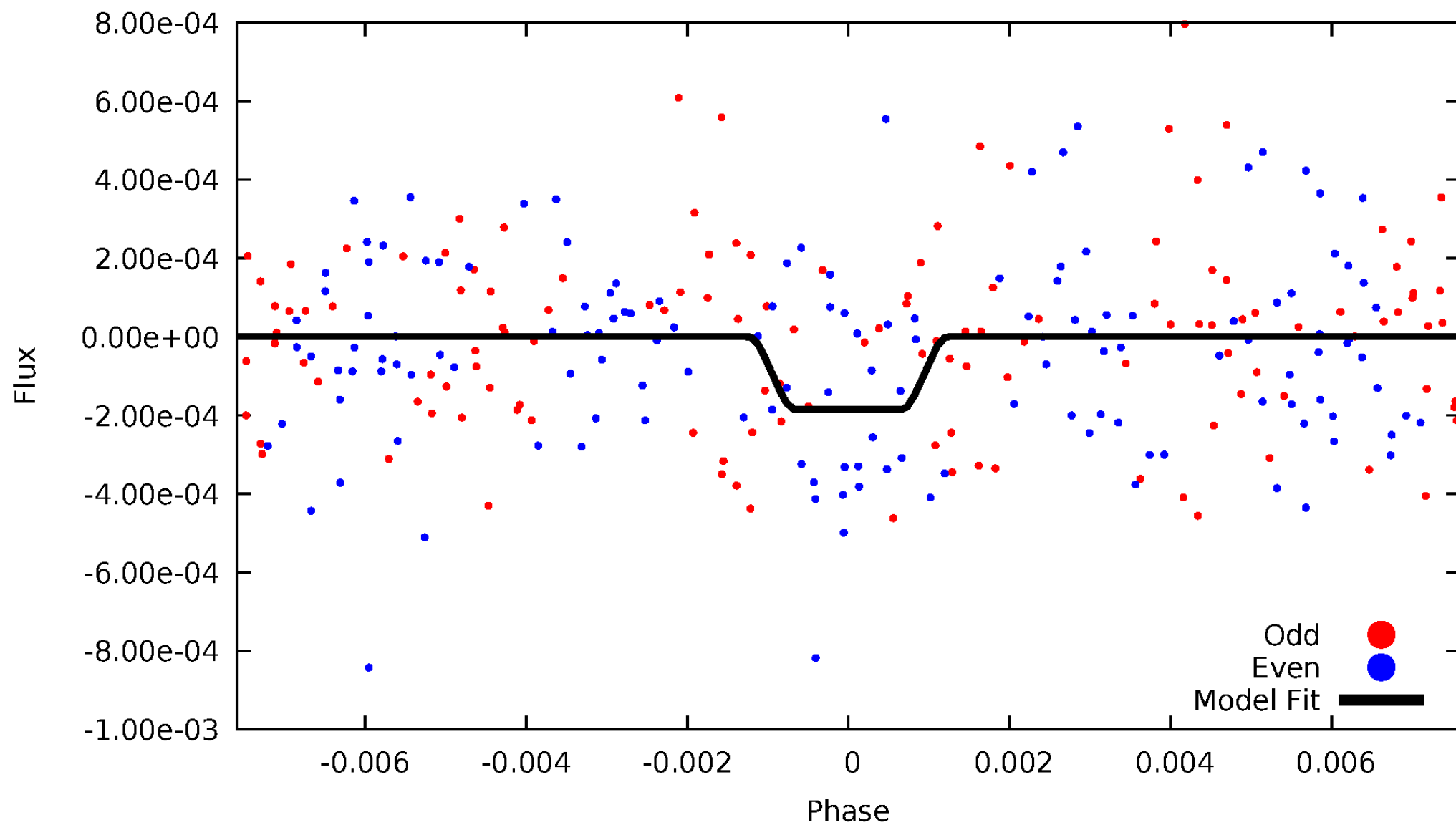
DV Odd/Even

TCE 005653693-02



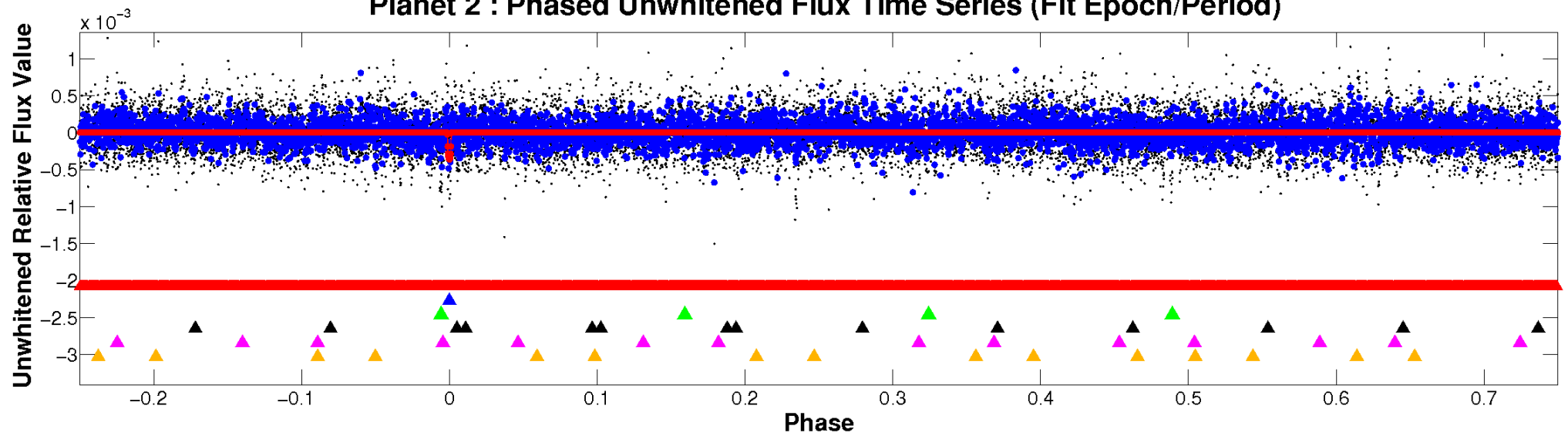
ALT Odd/Even

TCE 005653693-02

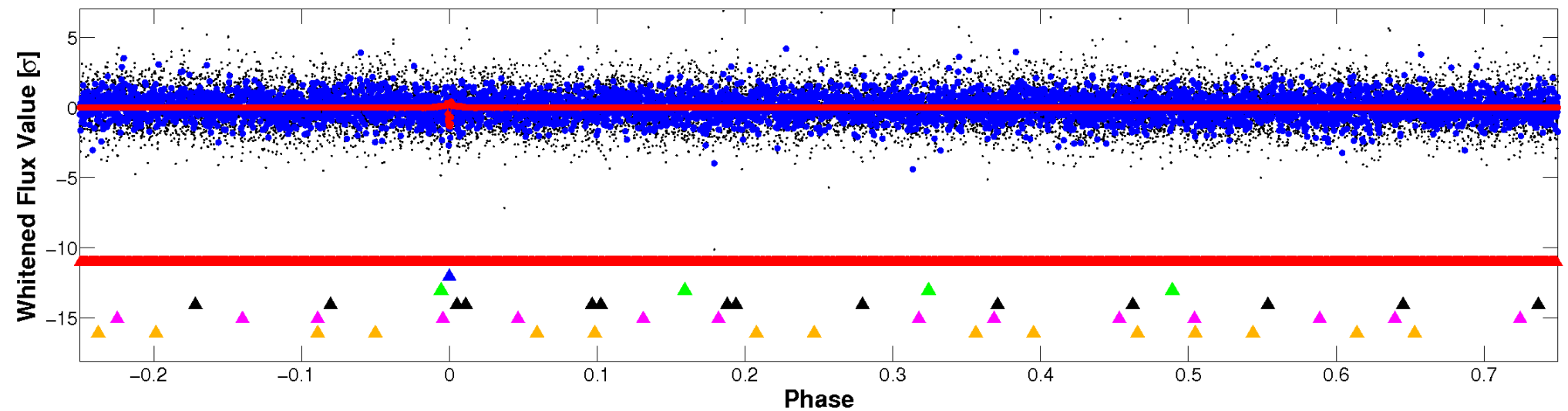


Non-Whitened Vs. Whitened Light Curve

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

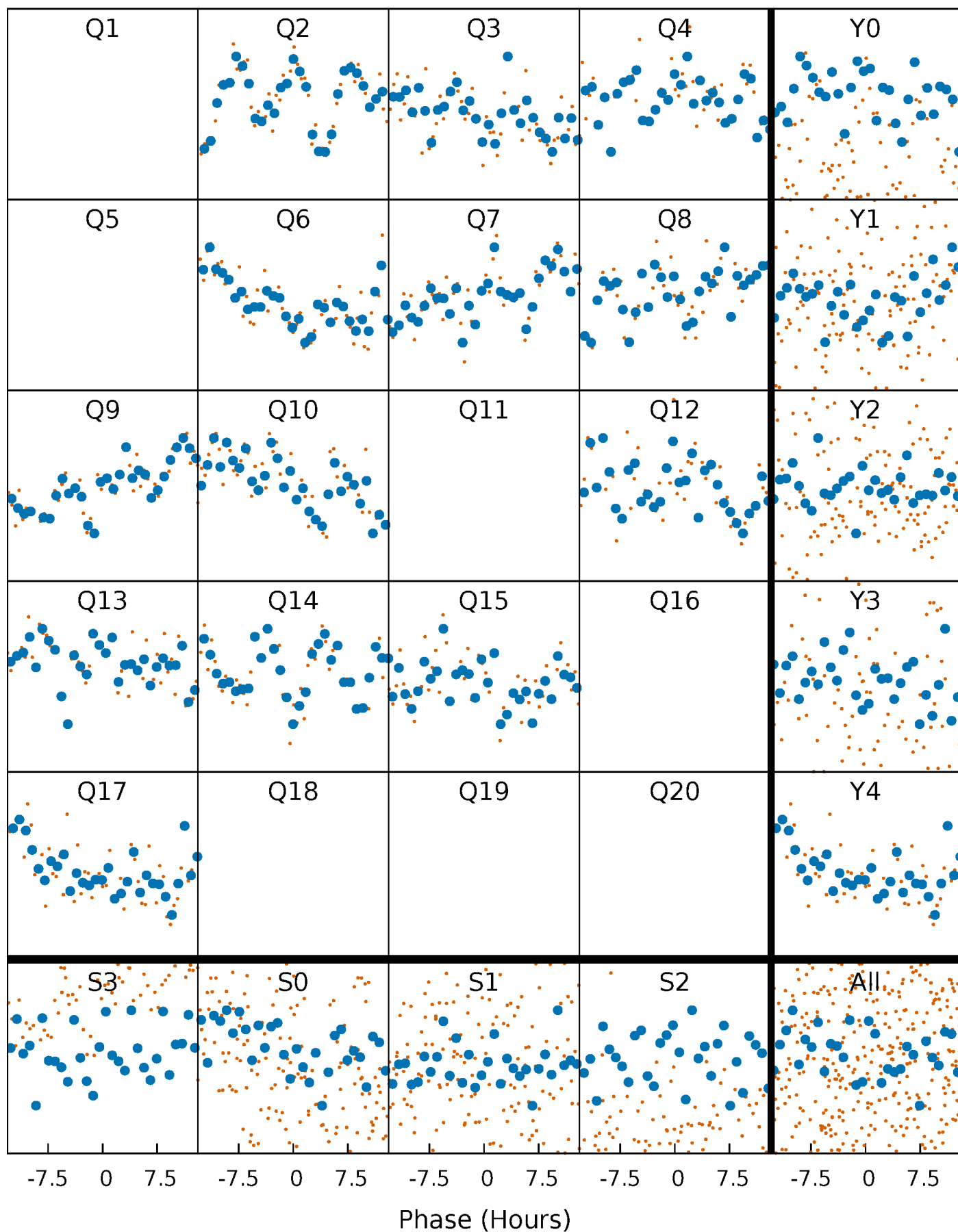


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



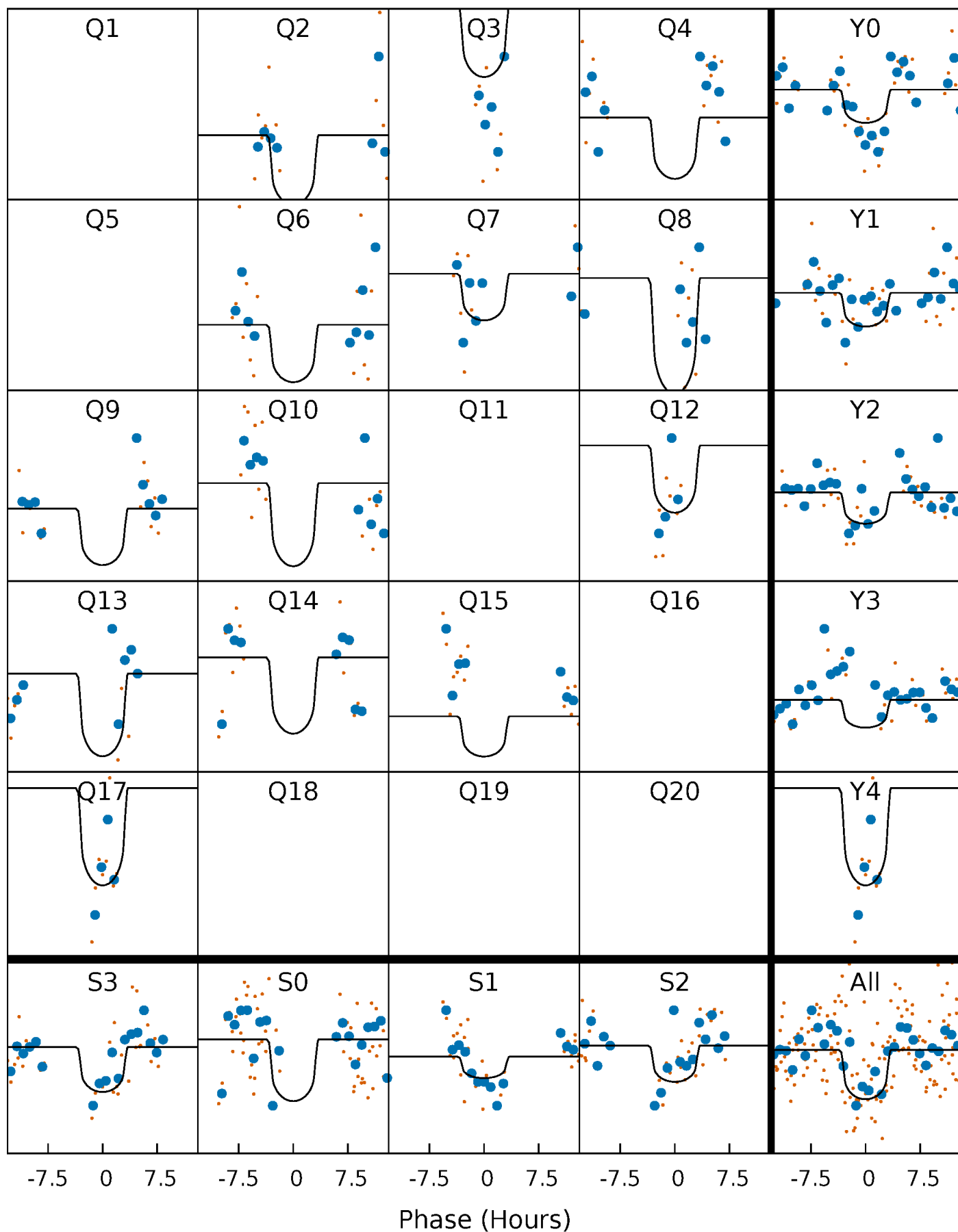
PDC Quarter-Phased Transit Curves

TCE 005653693-02 P=114.150526 Days $T_0=198.430118$ (BKJD)



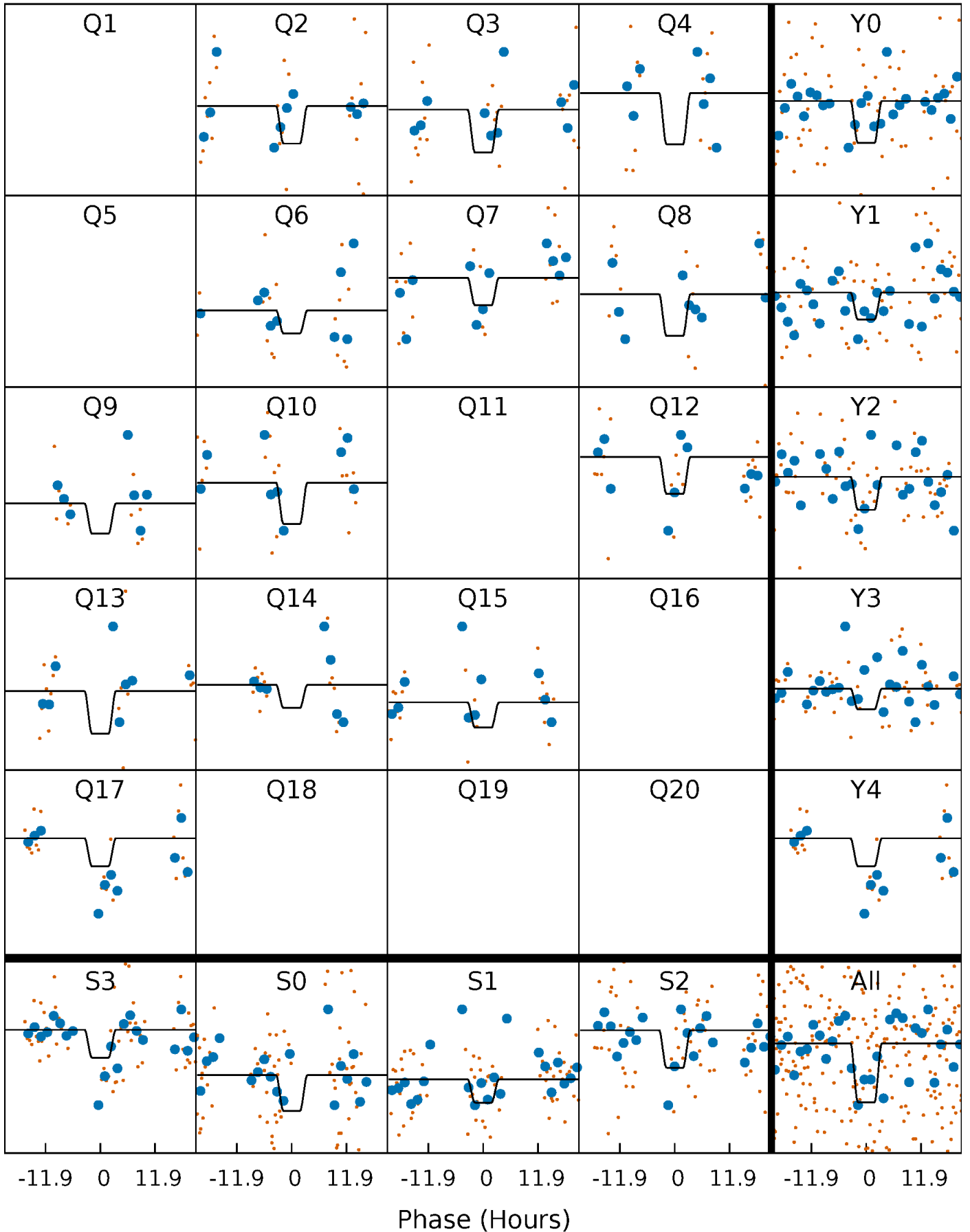
DV Quarter-Phased Transit Curves

TCE 005653693-02 P=114.150526 Days $T_0=198.430118$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

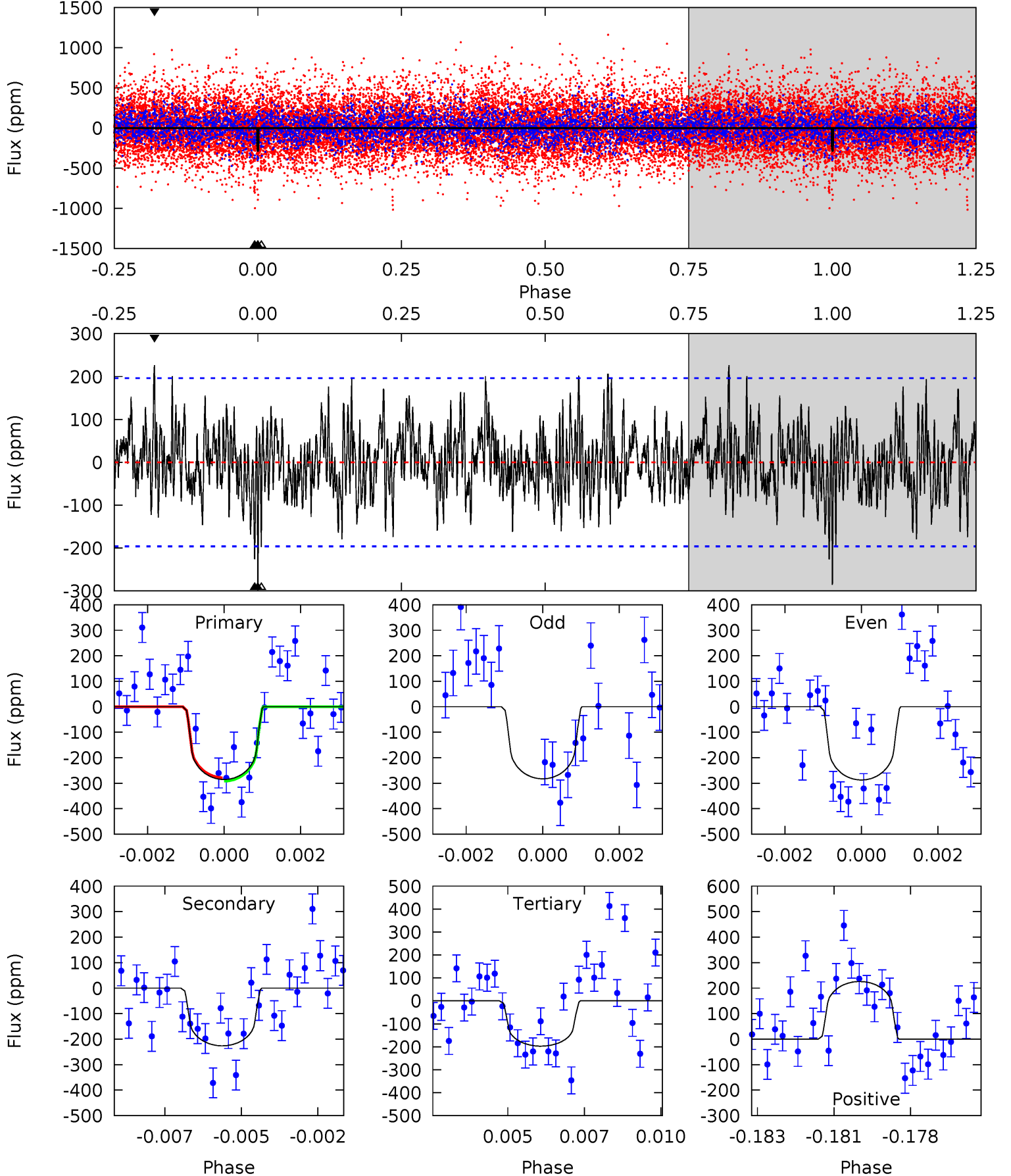
TCE 005653693-02 P=114.151973 Days $T_0=198.358257$ (BKJD)



DV Model-Shift Uniqueness Test

005653693-02, P = 114.150526 Days, E = 84.279592 Days

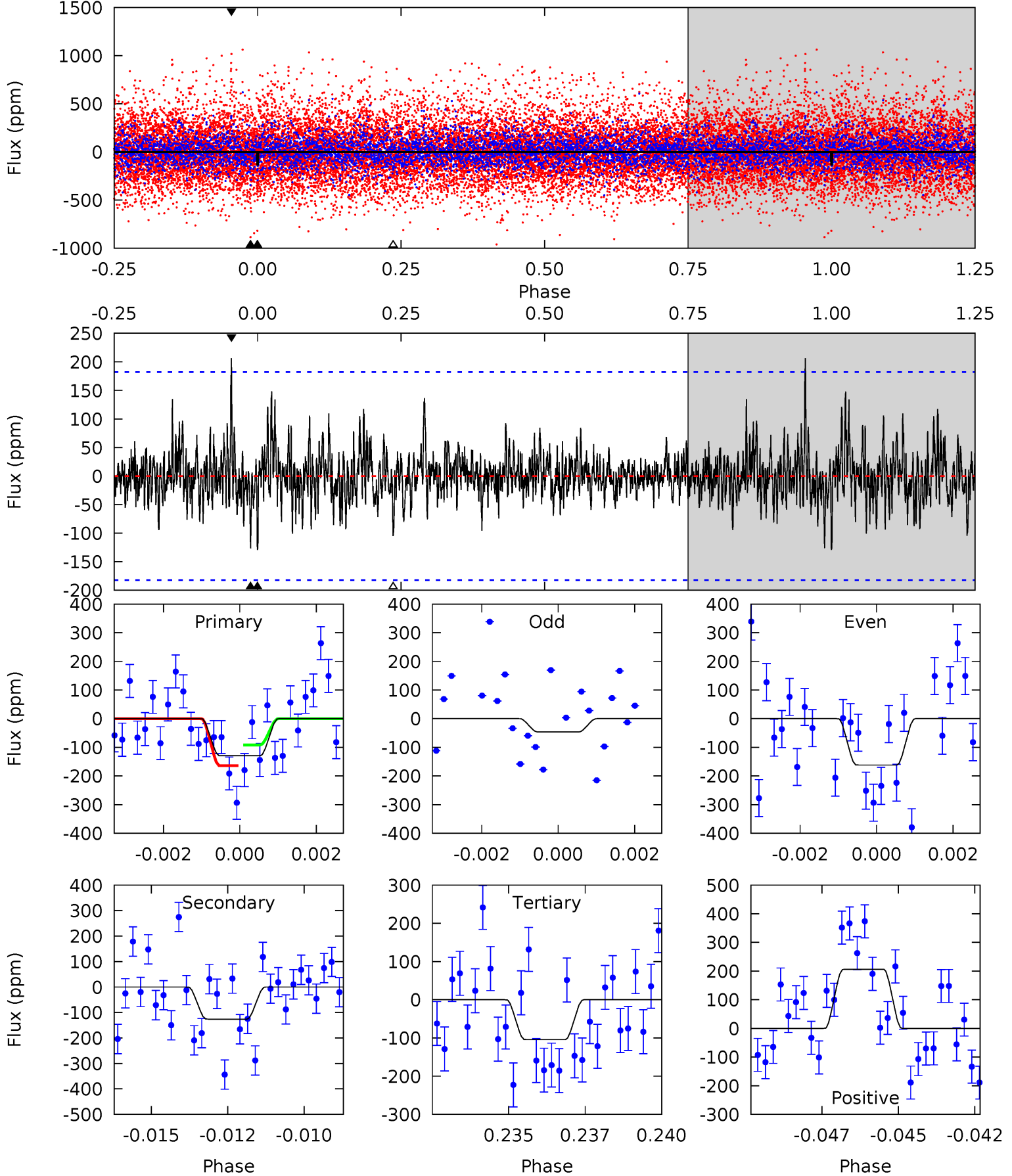
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.70	6.10	5.32	6.09	5.29	3.03	1.76	2.38	1.60	0.78	0.01	0.06	0.63	0.44	0.18



Alt Model-Shift Uniqueness Test

005653693-02, P = 114.151973 Days, E = 84.206284 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.76	3.66	3.03	5.99	5.29	3.03	1.01	0.73	-2.23	0.63	-2.33	1.63	1.35	0.61	1.05



Stellar Parameters For KIC 005653693

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5127^{+153}_{-138}	$4.558^{+0.084}_{-0.052}$	$-0.420^{+0.350}_{-0.300}$	$0.724^{+0.074}_{-0.074}$	$0.690^{+0.095}_{-0.044}$	$2.565^{+0.853}_{-0.446}$
	+3%/-3%	+2%/-1%	+83%/-71%	+10%/-10%	+14%/-6%	+33%/-17%
Source	PHO1	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 005653693-02 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-226 ± 37	$1.72^{+1.20}_{-1.07}$	420^{+16}_{-16}	4423^{+2372}_{-786}	7233^{+42512}_{-4903}
Alt.	-126 ± 34	$1.55^{+1.13}_{-1.04}$	419^{+16}_{-15}	4132^{+2567}_{-717}	4964^{+39395}_{-3397}

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 $A_{obs} \gg 1.0$

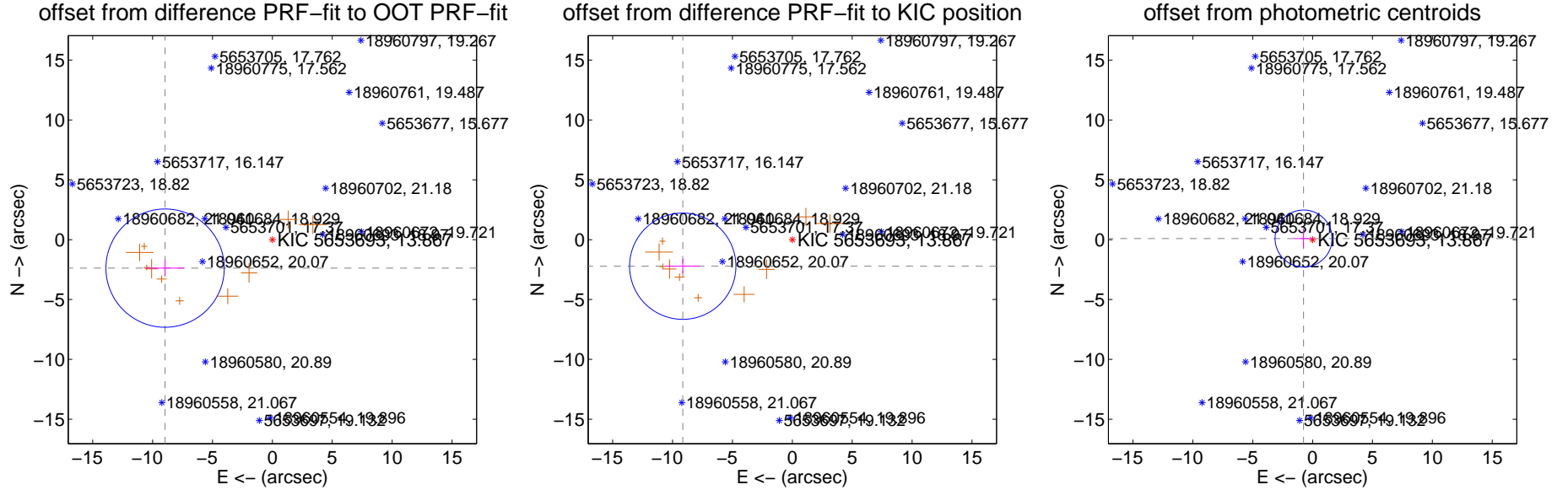
DV Centroid Data

Supplemental centroid analysis for 005653693-02. Kepler magnitude: 13.87. Transit SNR 7.77

There are 0 quarters with good PRF difference image offsets

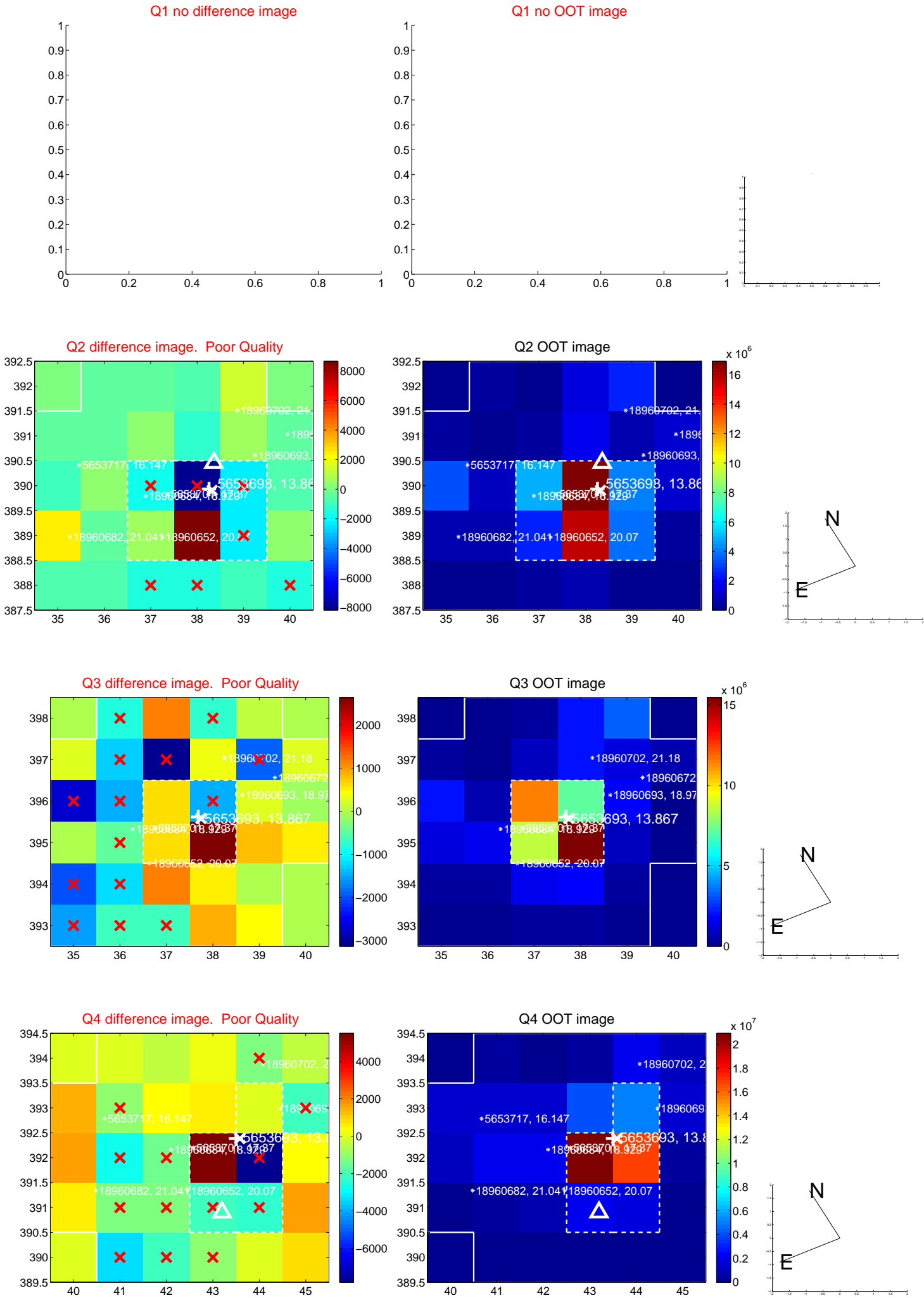
The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	9.263 ± 1.646	5.63	8.953 ± 1.609	-2.377 ± 0.663
PRF-fit source offset from KIC position	9.410 ± 1.479	6.36	9.145 ± 1.454	-2.218 ± 0.615
photometric centroid source offset	0.76 ± 0.79	0.95	0.75 ± 0.79	0.09 ± 0.78

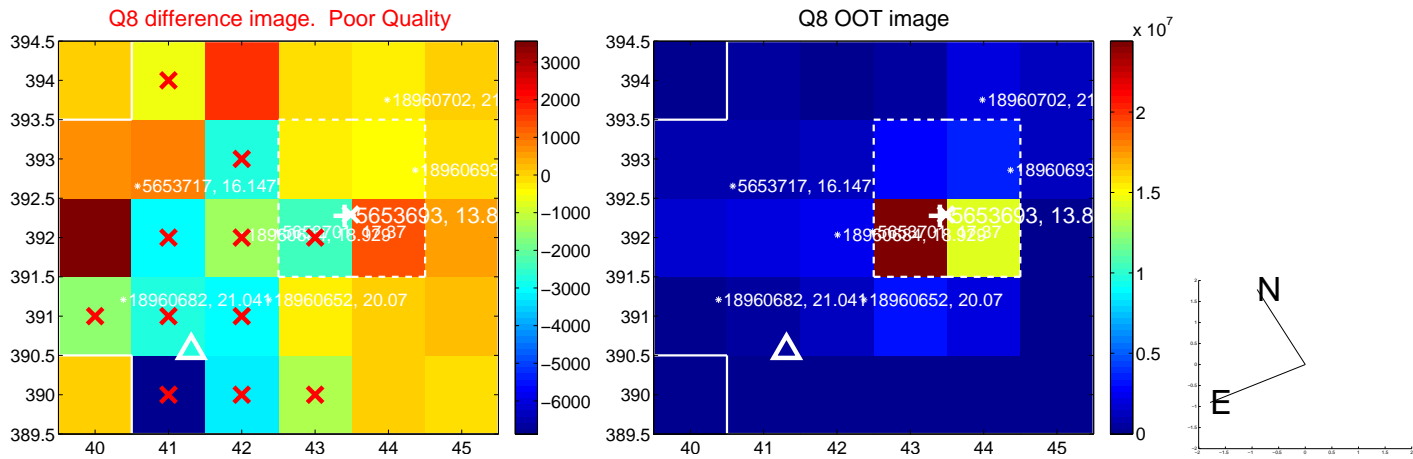
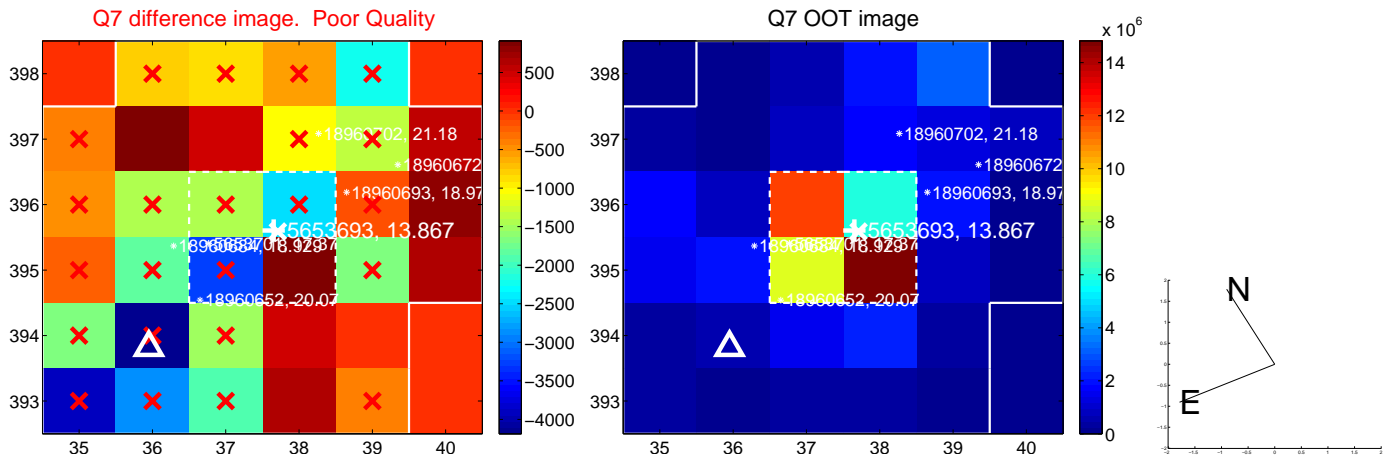
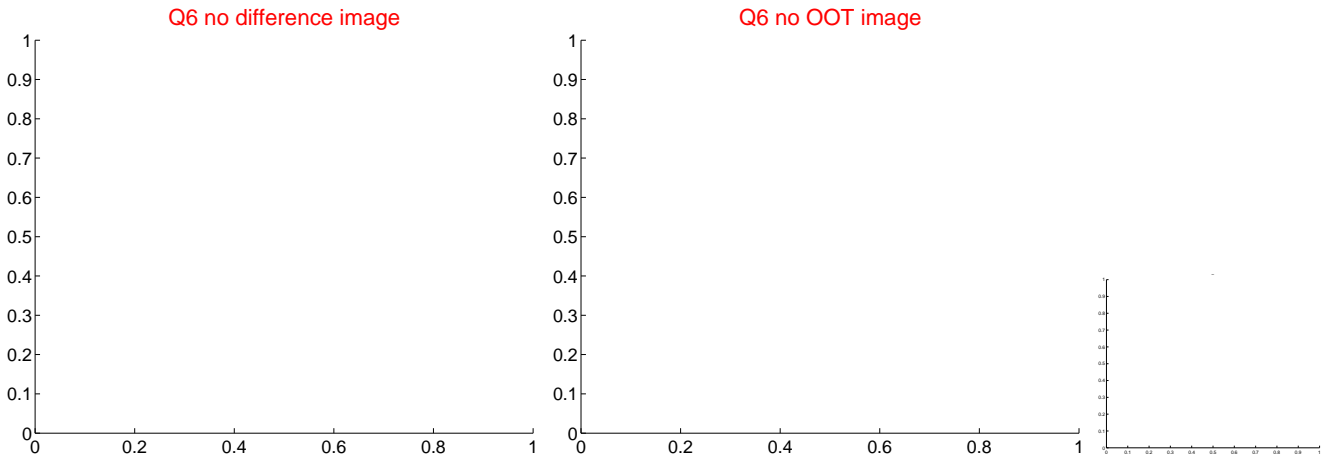
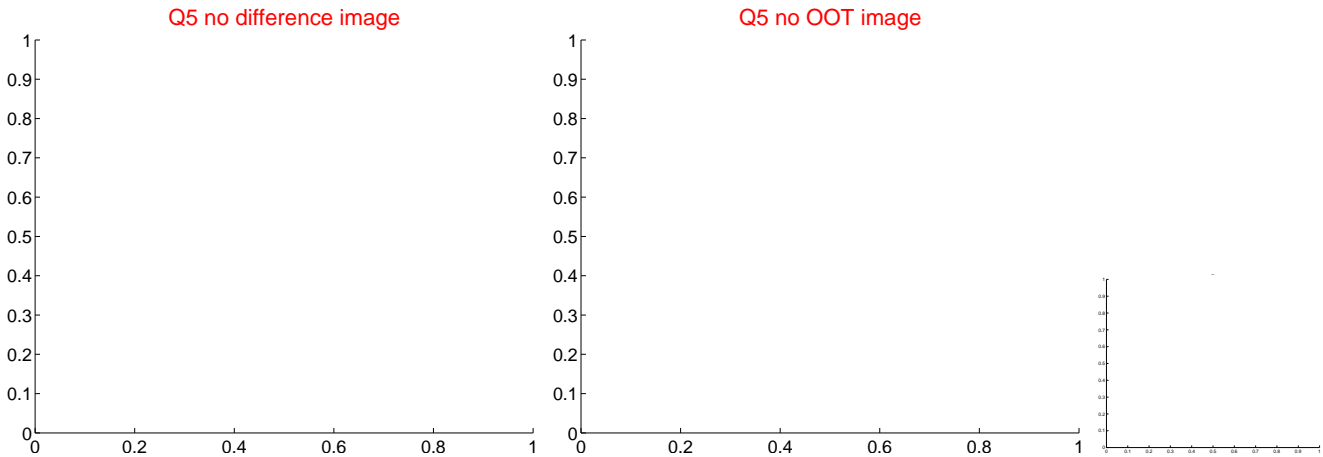


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

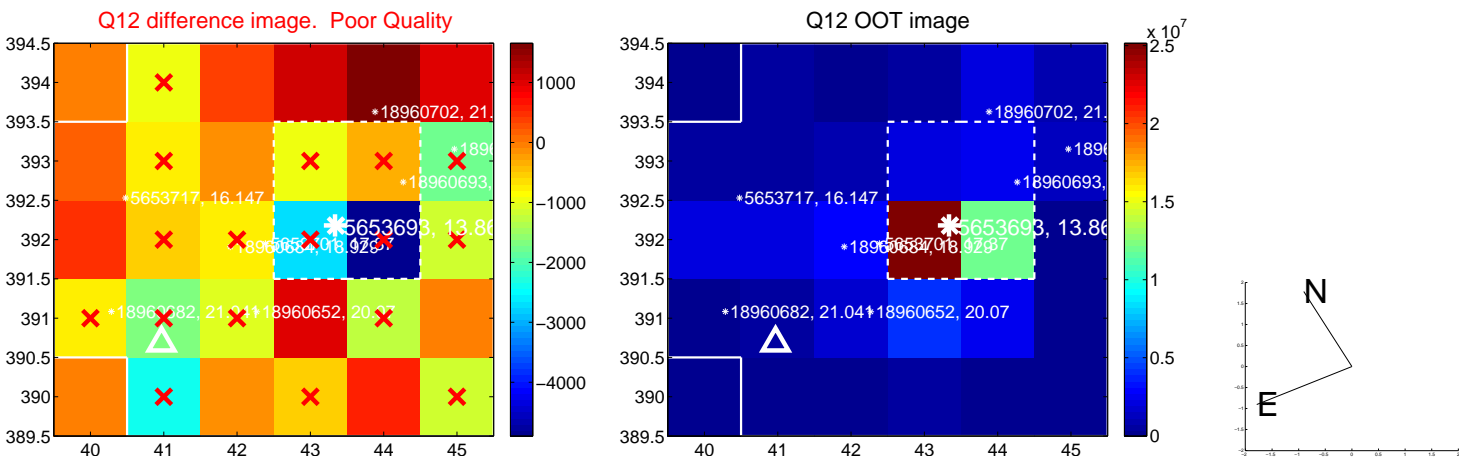
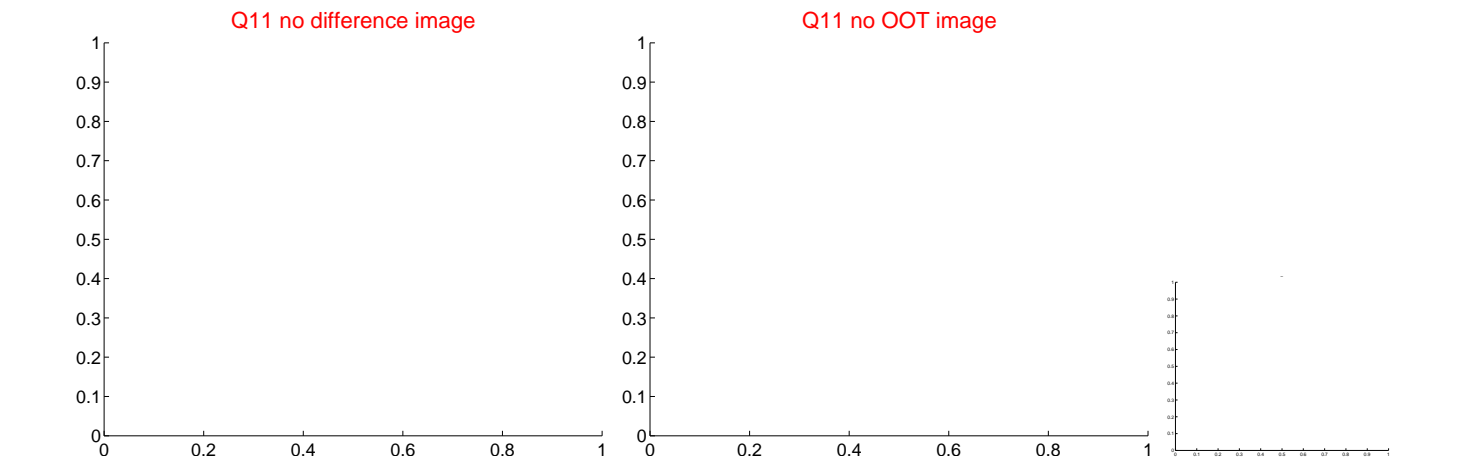
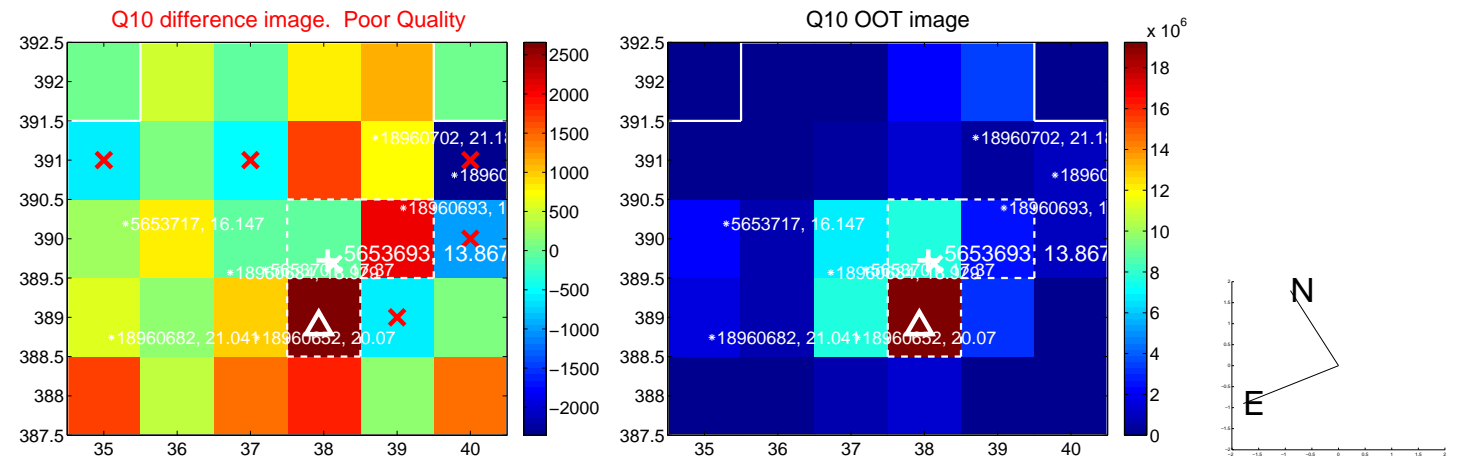
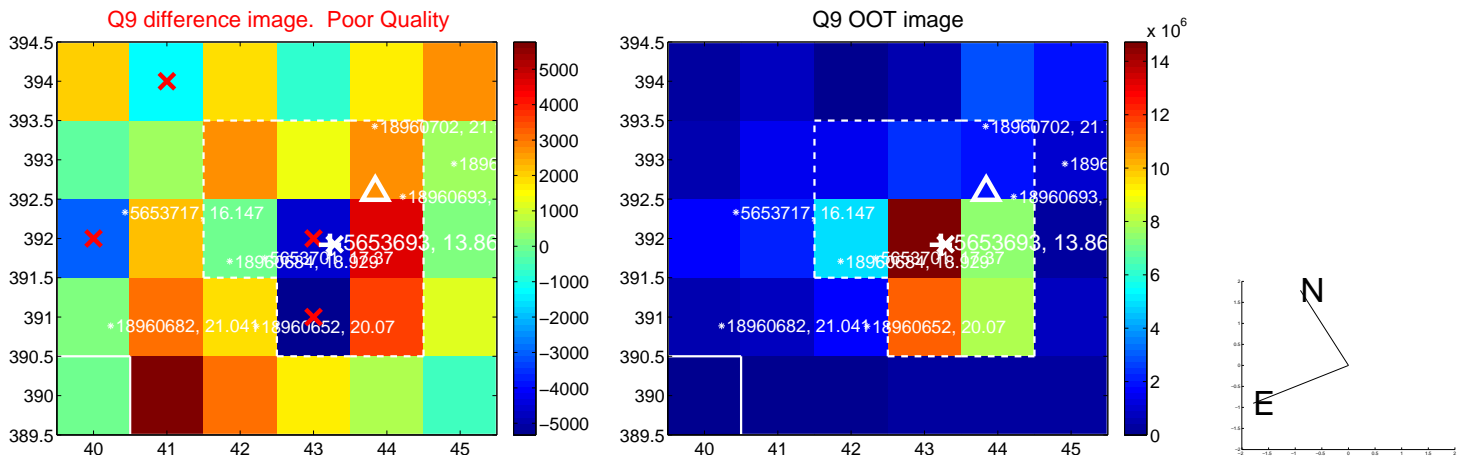
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



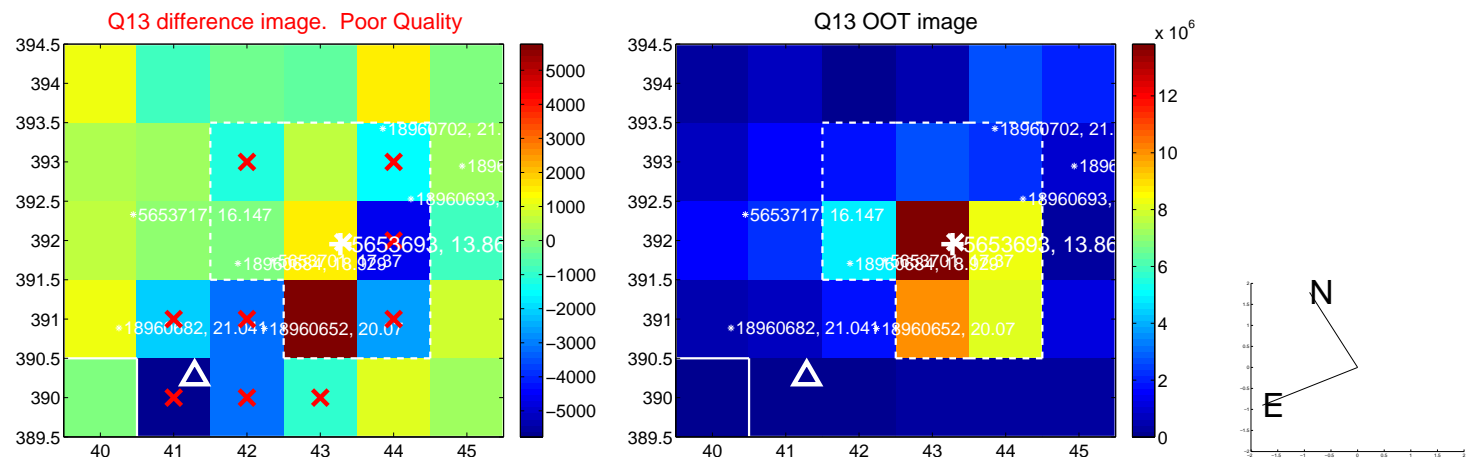
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

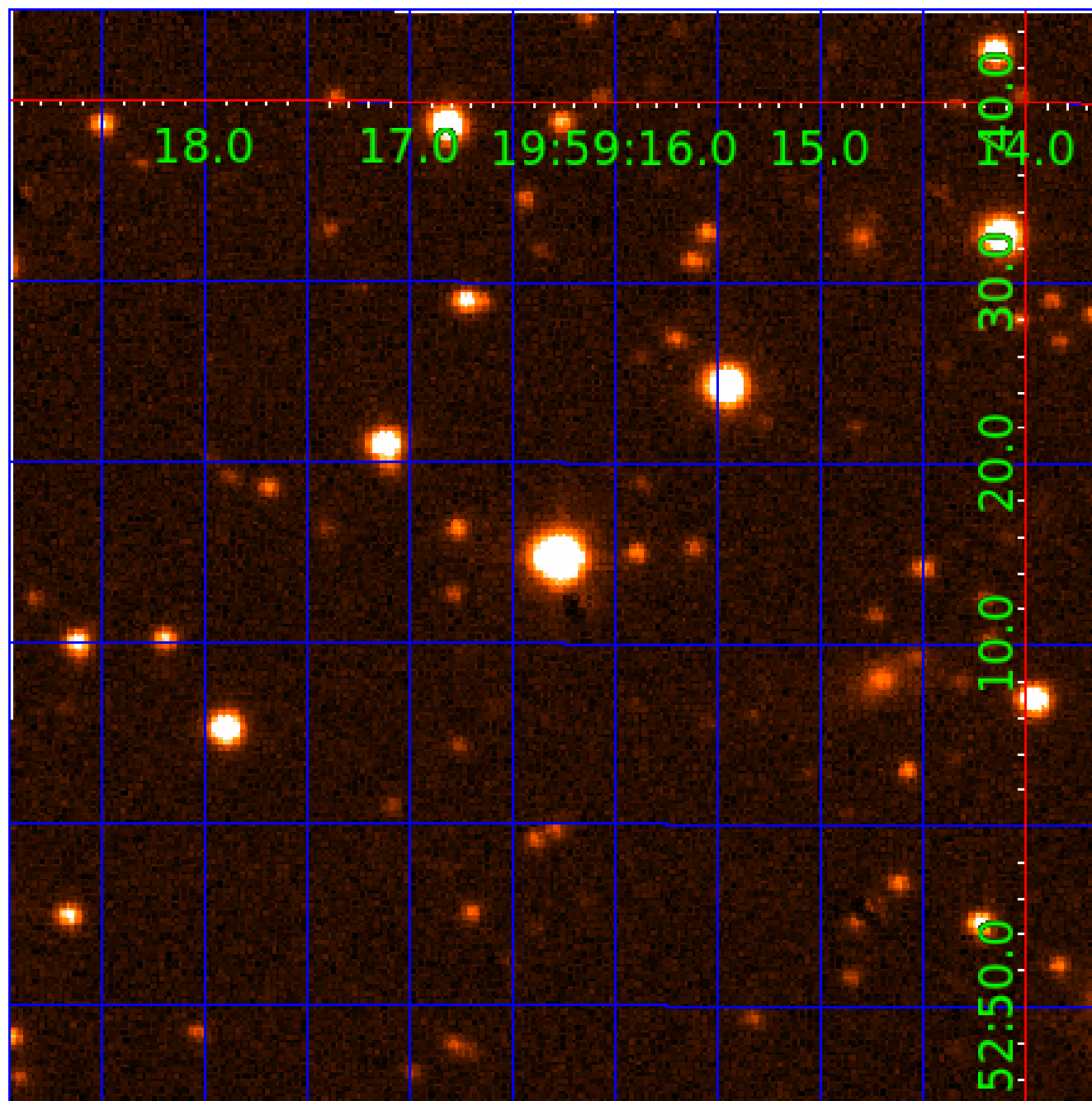


white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005653693

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})
005653693-01	OBS	No	0.676527	131.643937	36.9	3.889	12.9	12.9	0.72	5127	0.44	1824.43
005653693-02	OBS	No	114.150526	198.430118	363.2	6.550	11.6	7.8	0.72	5127	1.54	1.96
005653693-03	OBS	No	361.274292	311.946568	460.0	5.547	8.5	7.8	0.72	5127	1.80	0.42
005653693-04	OBS	No	103.711913	220.569321	269.5	9.016	7.6	7.1	0.72	5127	1.32	2.22
005653693-05	OBS	No	98.672607	213.410086	539.7	1.312	7.5	7.2	0.72	5127	1.99	2.38
005653693-06	OBS	No	97.206434	146.343636	467.1	2.440	7.1	7.4	0.72	5127	1.83	2.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005653693-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
005653693-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005653693-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005653693-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
005653693-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_TRACKER—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST
005653693-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_UNRESOLVED_OFFSET

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

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

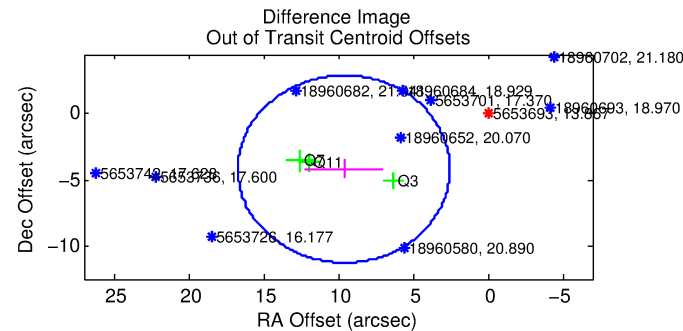
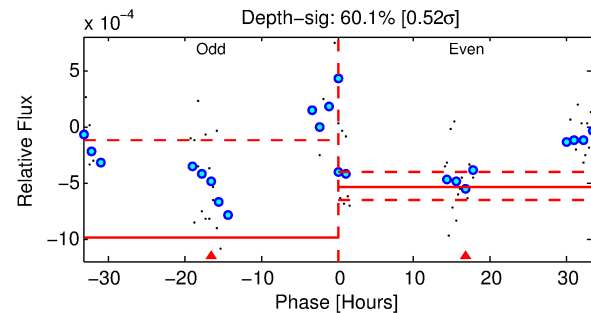
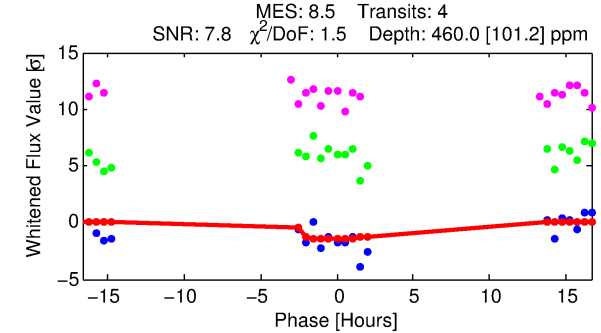
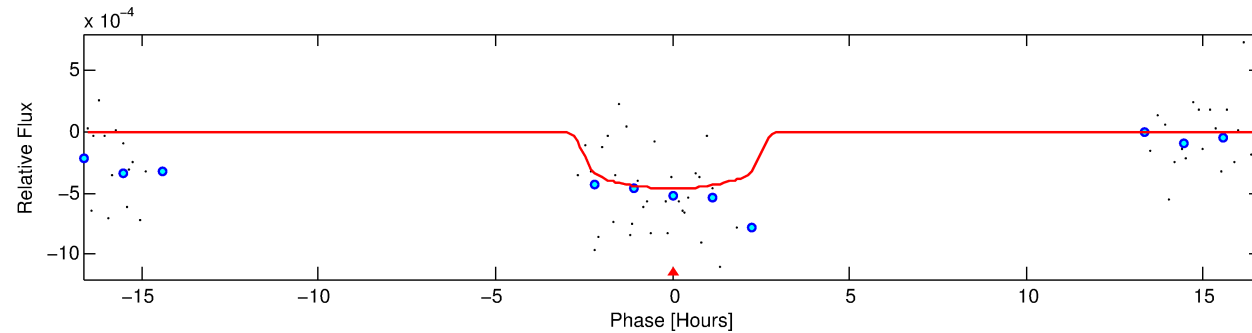
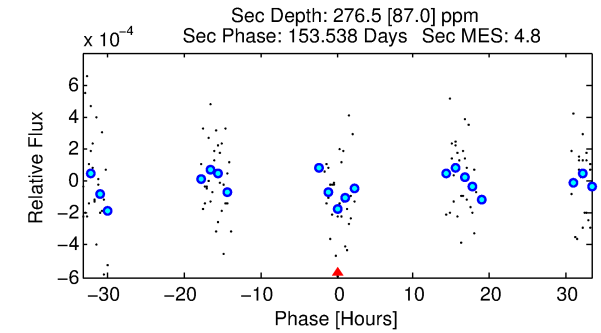
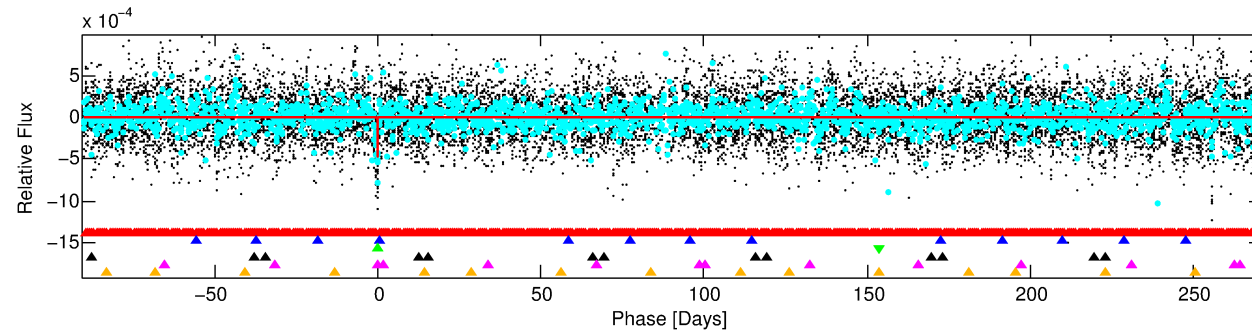
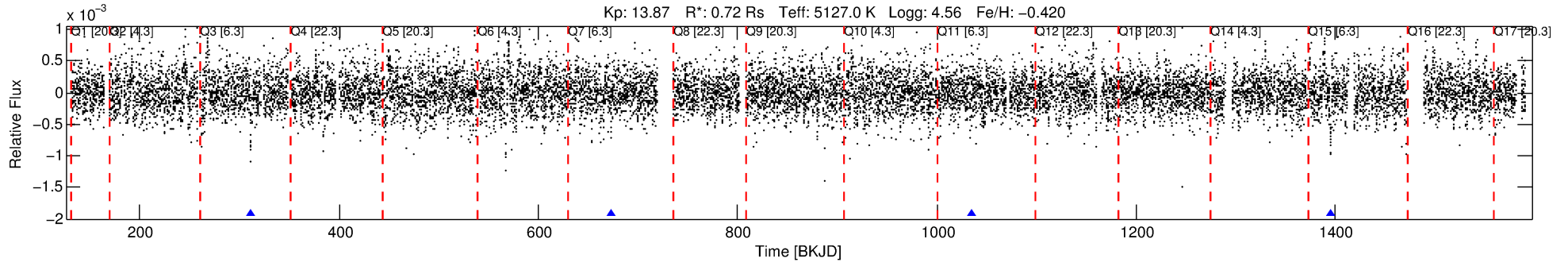
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005653693-03

No Significant Match Found

DV One-Page Summary

KIC: 5653693 Candidate: 3 of 6 Period: 361.274 d



DV Fit Results:

Period = 361.27429 [0.02374] d
Epoch = 311.9466 [0.0634] BKJD
Rp/R* = 0.0228 [0.0312]
a/R* = 275.17 [1523.17]
b = 0.86 [1.73]
Seff = 0.42 [0.08]
Teq = 205 [10] K
Rp = 1.80 [2.47] Re
a = 0.8778 [0.0823] AU
Ag = 36024.64 [99346.51] [0.36σ]
Teffp = 4375 [3015] K [1.38σ]

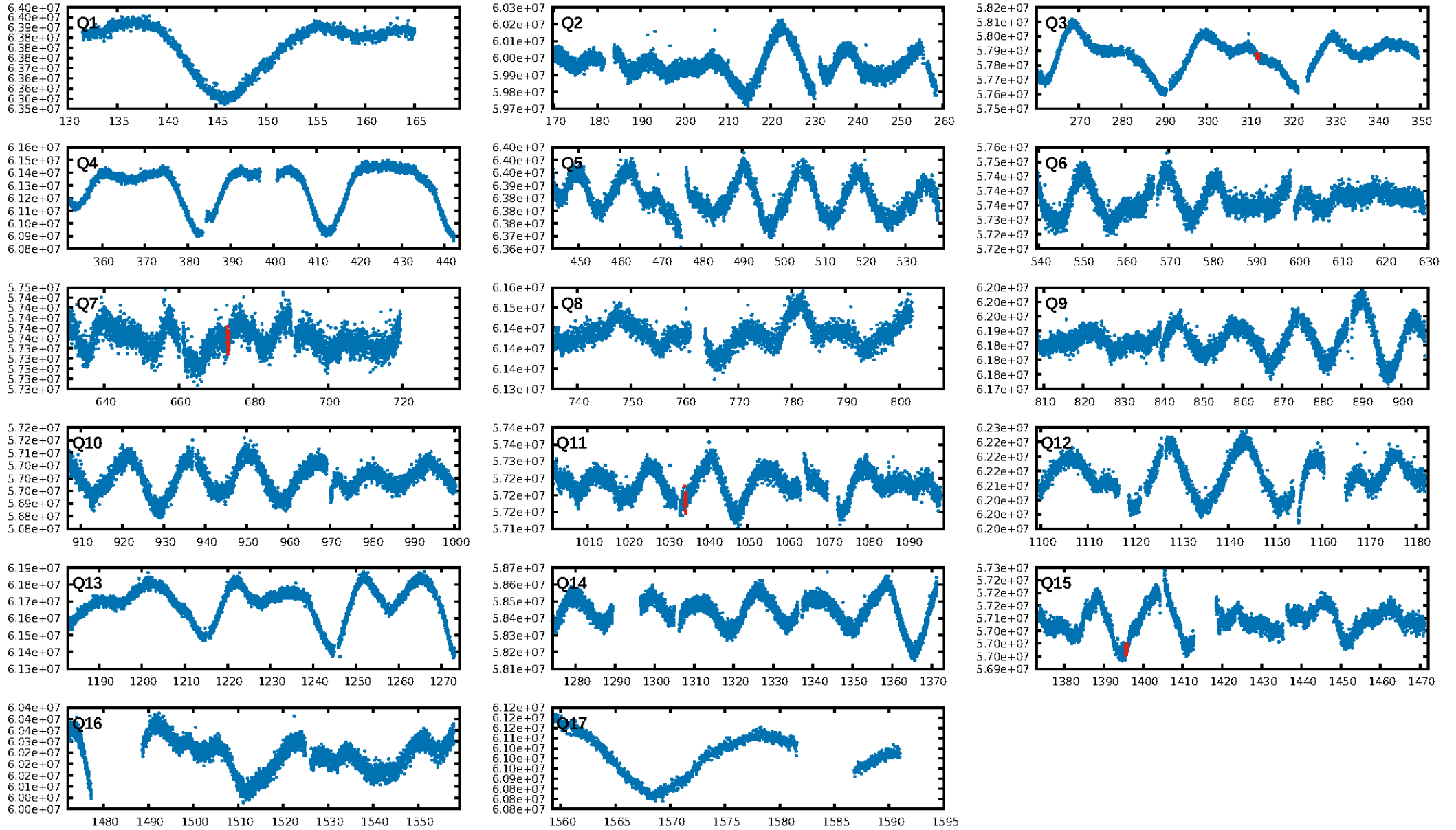
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [691.04σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.7%
ModelChiSquareGof-sig: 98.5%
Bootstrap-pfa: 5.26e-10
RollingBand-fgt: 1.00 [4/4]
GhostDiagnostic-chr: 2.28
Centroid-sig: N/A
Centroid-so: 1.280 arcsec [1.29σ]
OotOffset-rm: 10.488 arcsec [4.44σ]
KicOffset-rm: 10.537 arcsec [4.41σ]
OotOffset-st: 0/3/0/0 [3]
KicOffset-st: 0/3/0/0 [3]
DiffImageQuality-fgm: 0.00 [0/3]
DiffImageOverlap-fno: 0.00 [0/4]

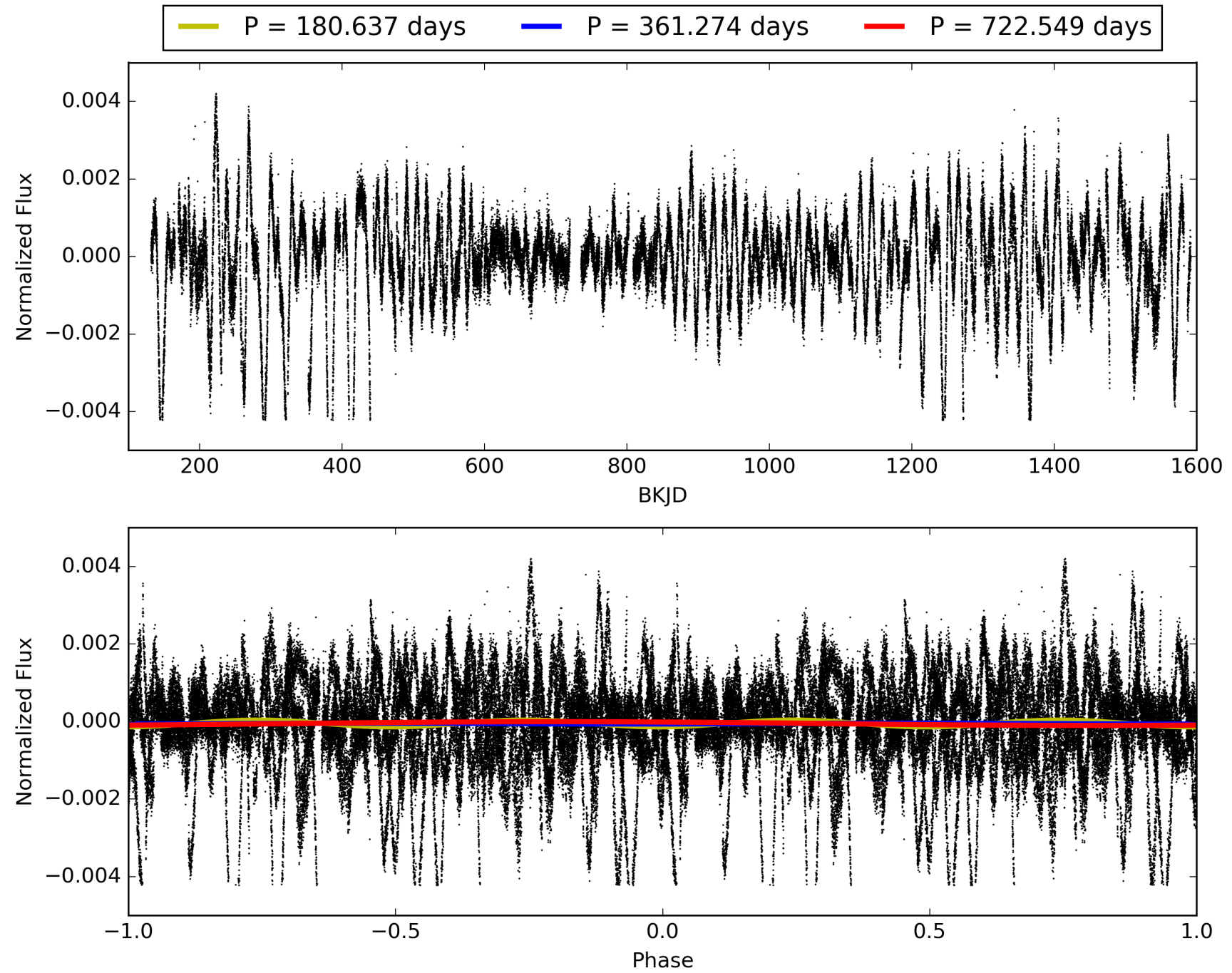
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 04:25:01 Z

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

TCE 005653693-03, PDC Light Curves

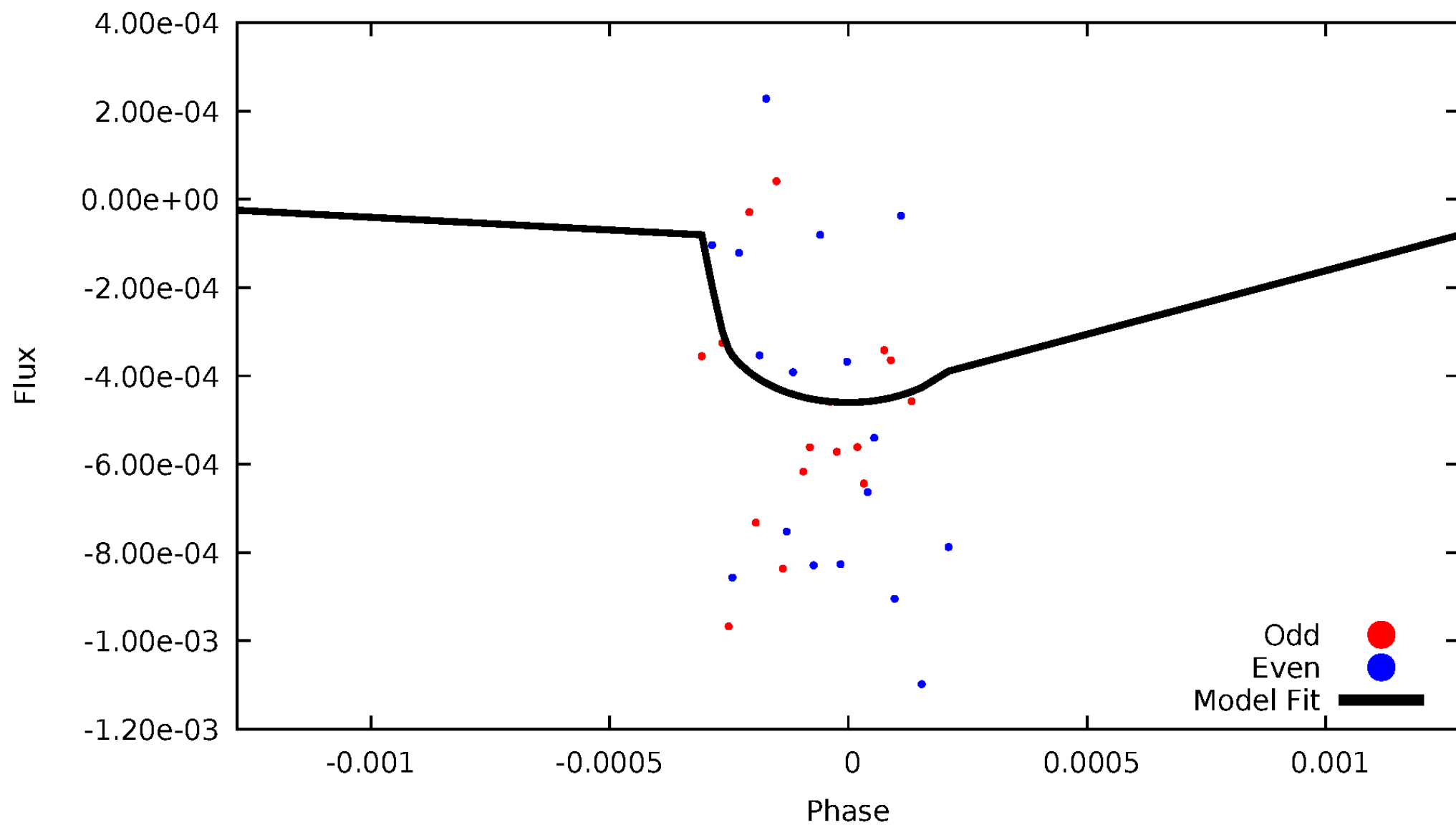


TCE 005653693-03



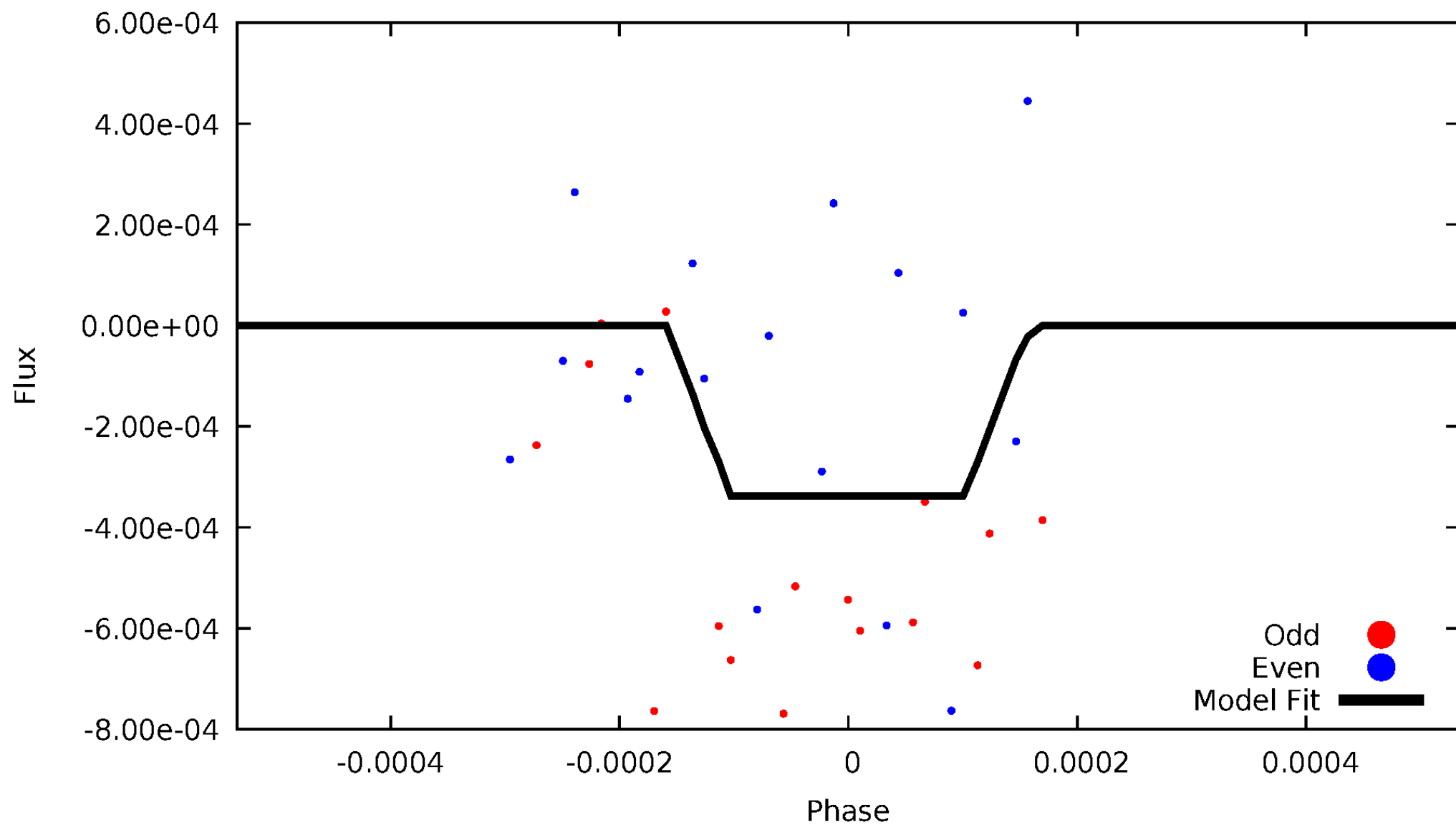
DV Odd/Even

TCE 005653693-03



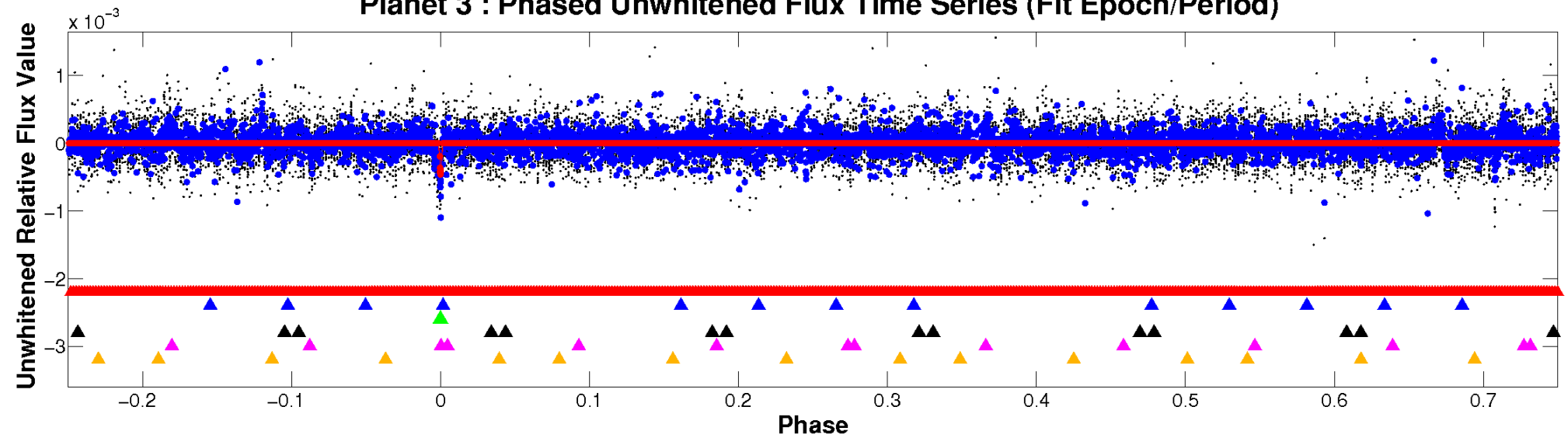
ALT Odd/Even

TCE 005653693-03

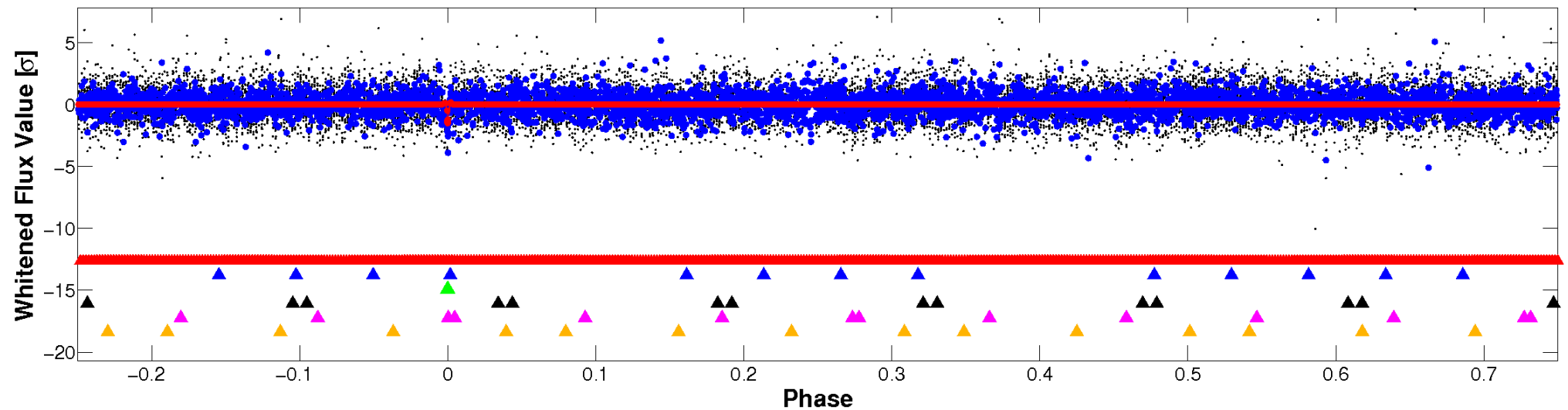


Non-Whitened Vs. Whitened Light Curve

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

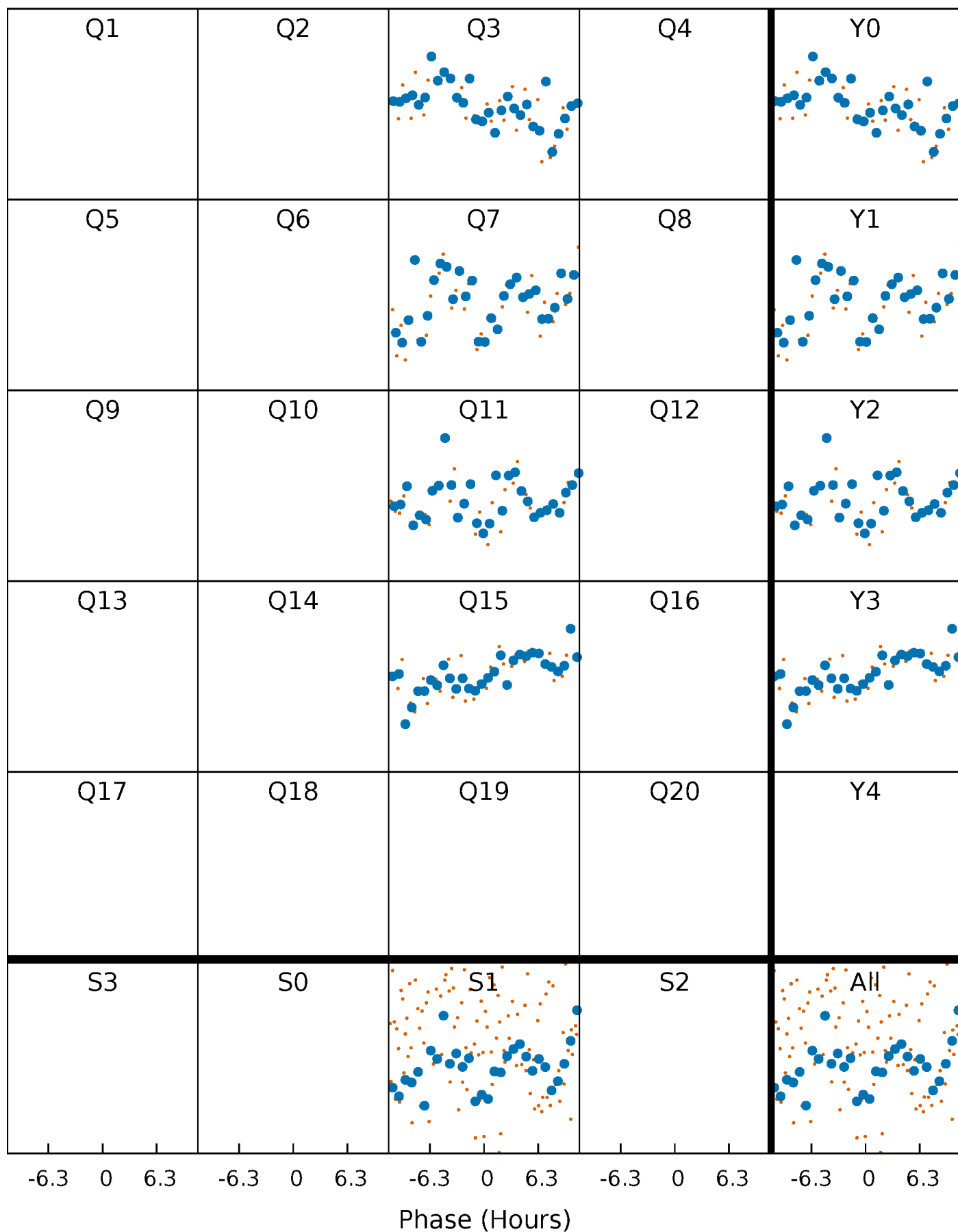


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



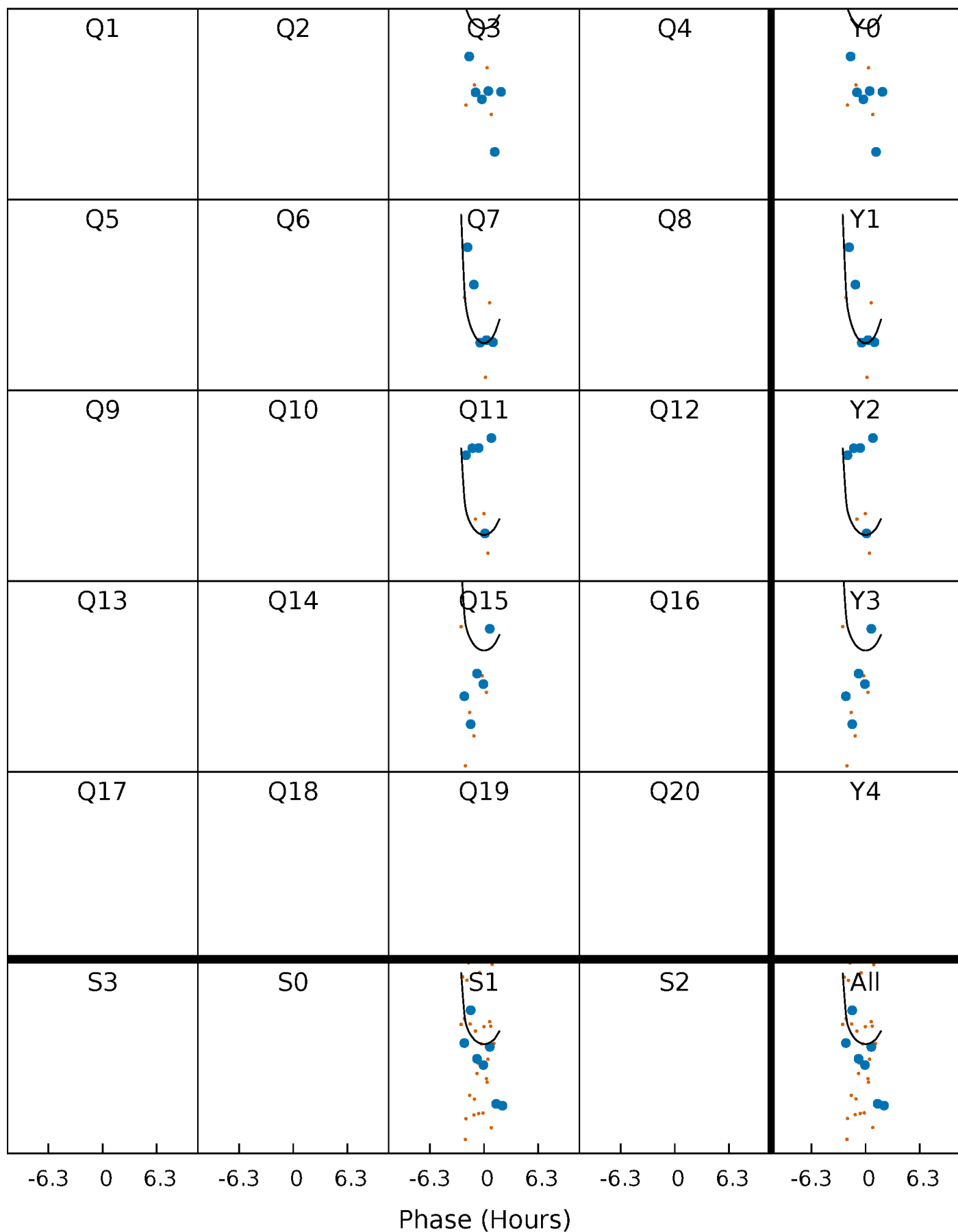
PDC Quarter-Phased Transit Curves

TCE 005653693-03 $P=361.274292$ Days $T_0=311.946568$ (BKJD)



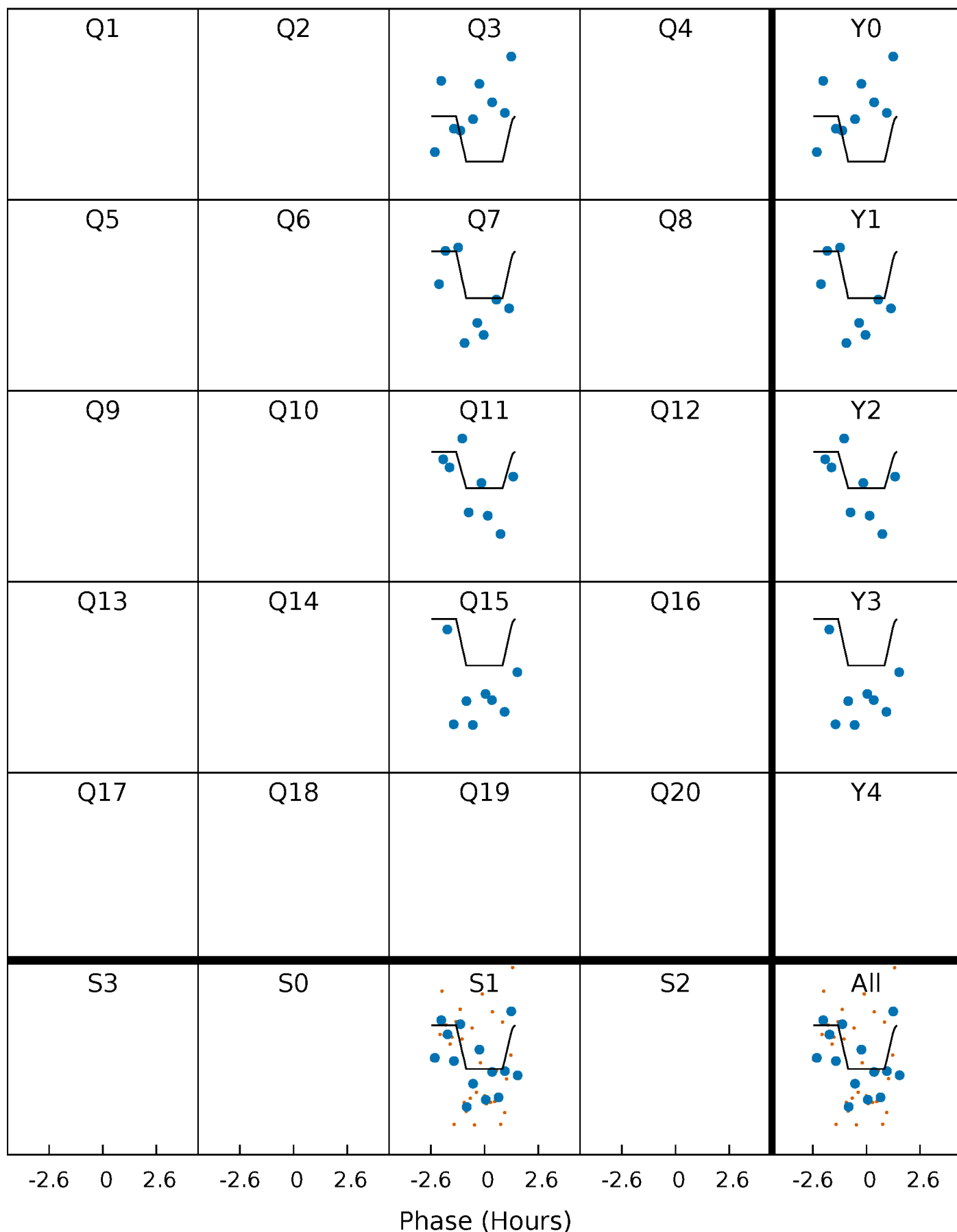
DV Quarter-Phased Transit Curves

TCE 005653693-03 P=361.274292 Days $T_0=311.946568$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

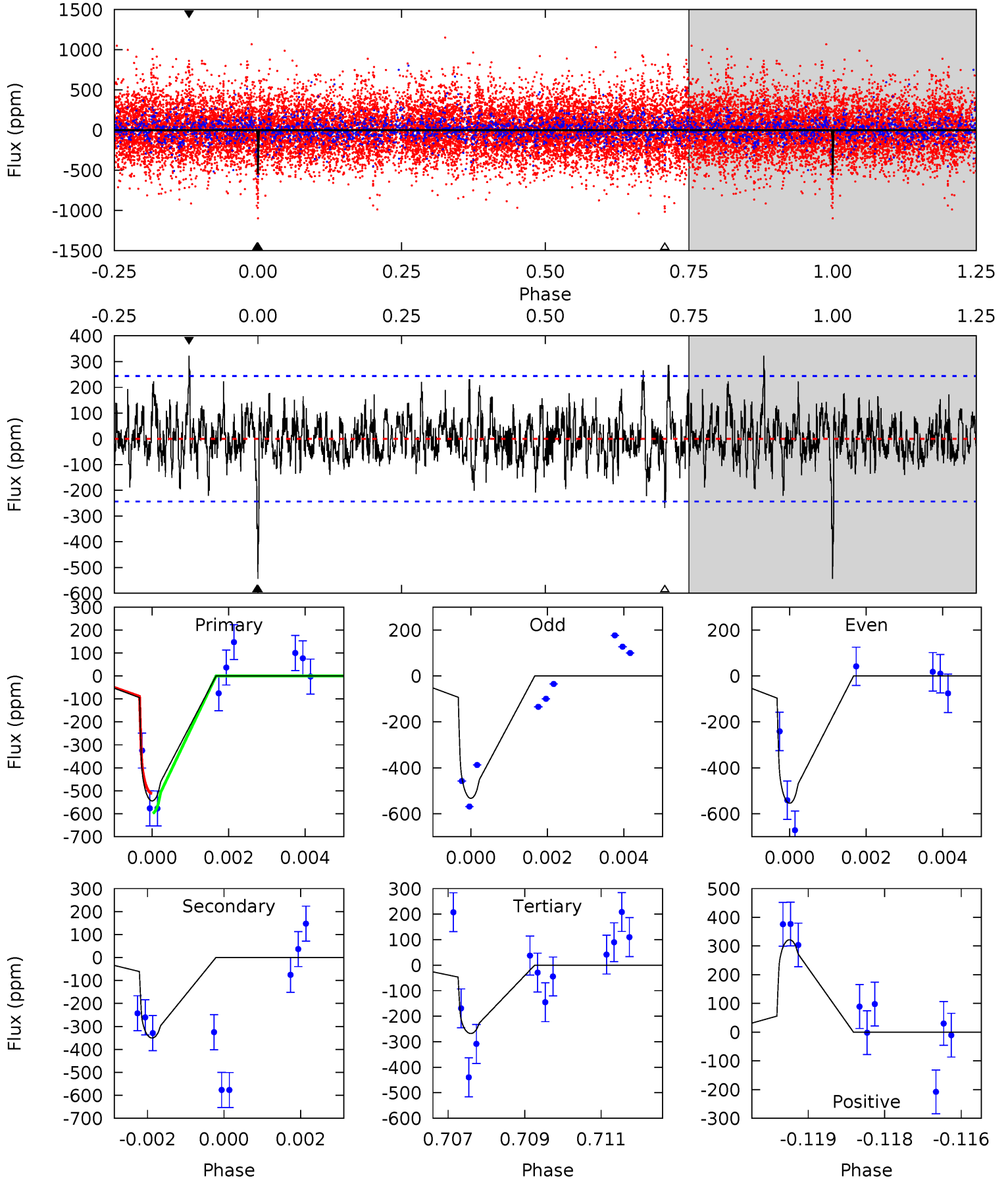
TCE 005653693-03 P=361.258186 Days $T_0=311.965781$ (BKJD)



DV Model-Shift Uniqueness Test

005653693-03, P = 361.274292 Days, E = 311.946568 Days

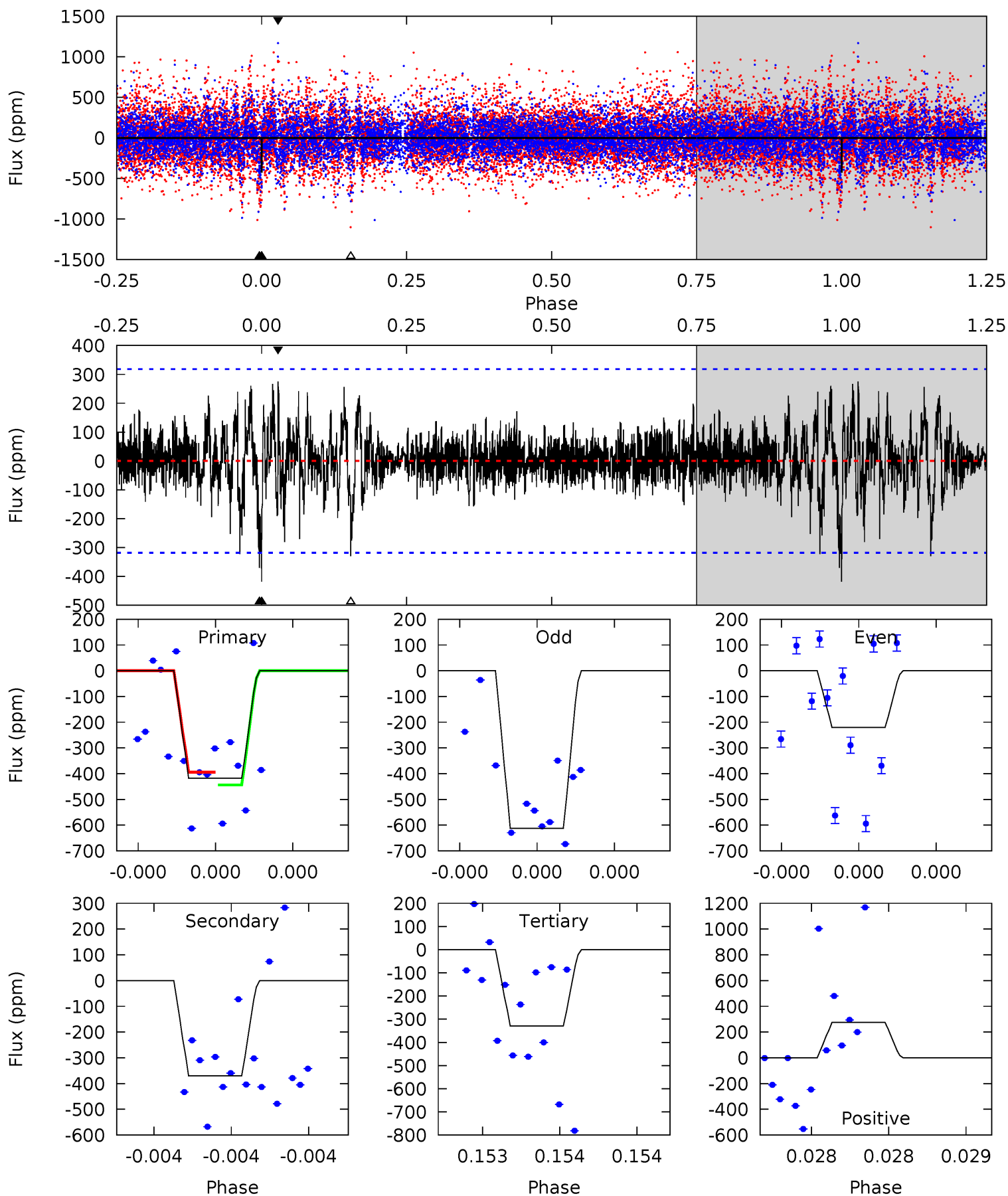
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.9	7.68	5.87	7.05	5.34	3.11	1.64	6.06	4.87	1.81	0.63	0.23	0.98	0.37	0.90



Alt Model-Shift Uniqueness Test

005653693-03, P = 361.258186 Days, E = 311.965781 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.44	6.59	5.87	4.89	5.66	3.62	1.27	1.57	2.54	0.72	1.70	3.47	0.78	0.40	0.44



Stellar Parameters For KIC 005653693

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	5127^{+153}_{-138}	$4.558^{+0.084}_{-0.052}$	$-0.420^{+0.350}_{-0.300}$	$0.724^{+0.074}_{-0.074}$	$0.690^{+0.095}_{-0.044}$	$2.565^{+0.853}_{-0.446}$
	+3%/-3%	+2%/-1%	+83%/-71%	+10%/-10%	+14%/-6%	+33%/-17%
Source	PHO1	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 005653693-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-351 ± 46	$2.43^{+2.33}_{-1.60}$	286^{+12}_{-11}	4169^{+2735}_{-816}	$24648^{+201916}_{-18033}$
Alt.	-370 ± 56	$2.26^{+2.07}_{-1.48}$	286^{+11}_{-12}	4381^{+2736}_{-894}	$31261^{+240474}_{-22813}$

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 $A_{obs} \gg 1.0$

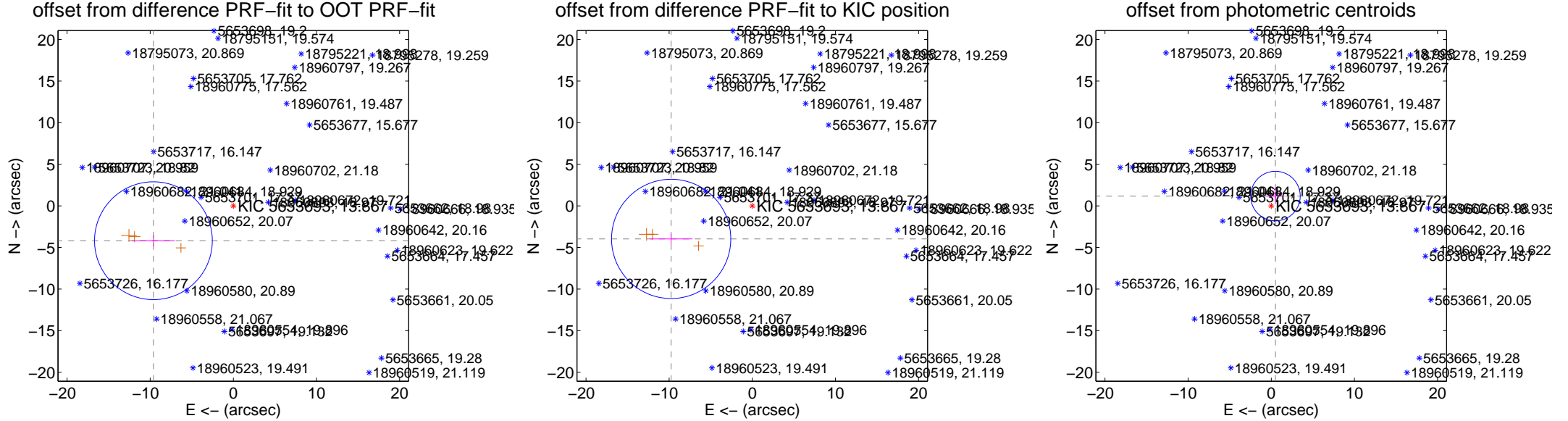
DV Centroid Data

Supplemental centroid analysis for 005653693-03. Kepler magnitude: 13.87. Transit SNR 7.80

There are 0 quarters with good PRF difference image offsets

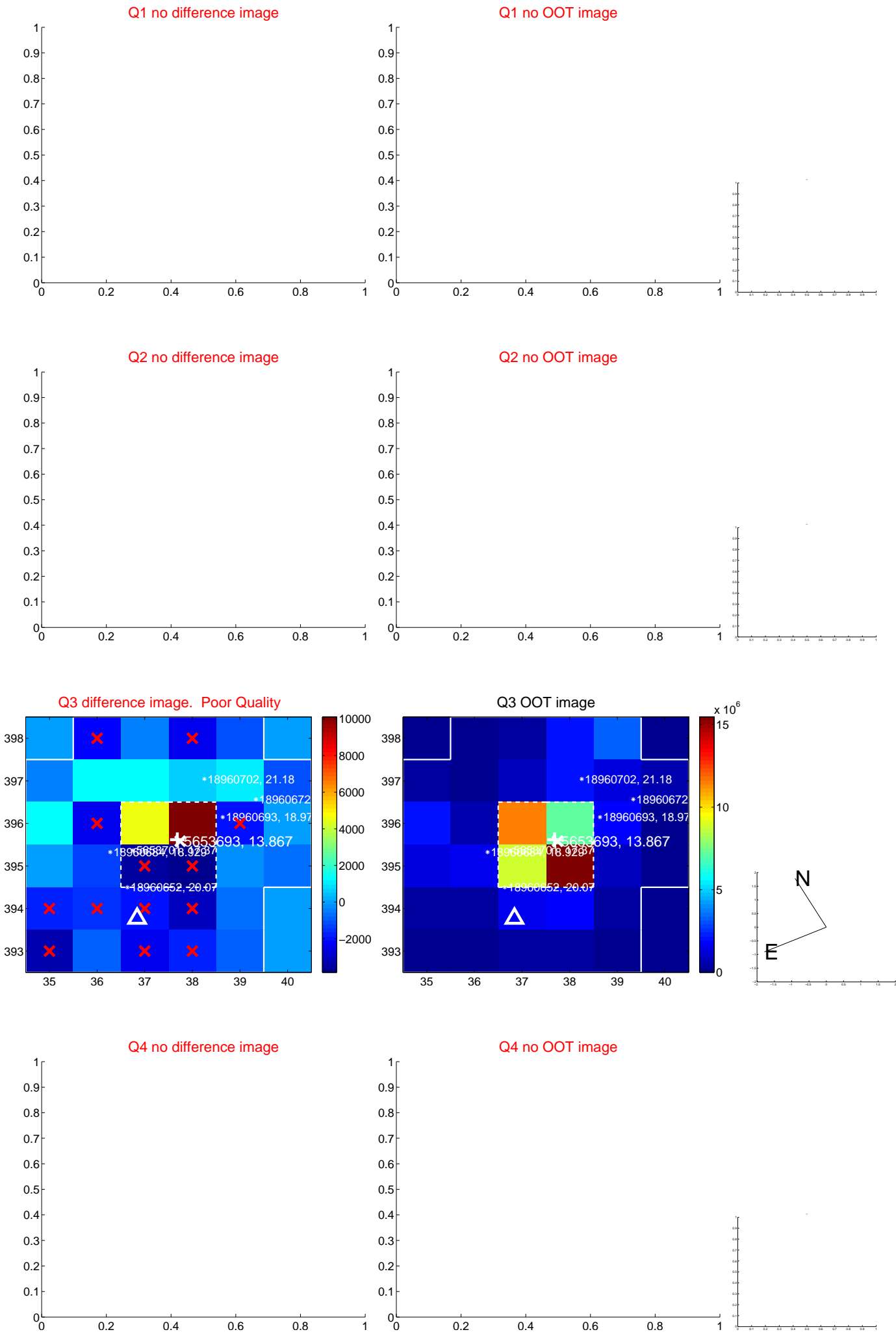
The direct PRF centroid is offset from the target star catalog position by about 0.31 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.488 ± 2.361	4.44	9.614 ± 2.561	-4.190 ± 0.632
PRF-fit source offset from KIC position	10.537 ± 2.390	4.41	9.760 ± 2.569	-3.972 ± 0.604
photometric centroid source offset	1.28 ± 0.99	1.29	-0.51 ± 1.09	1.18 ± 0.98

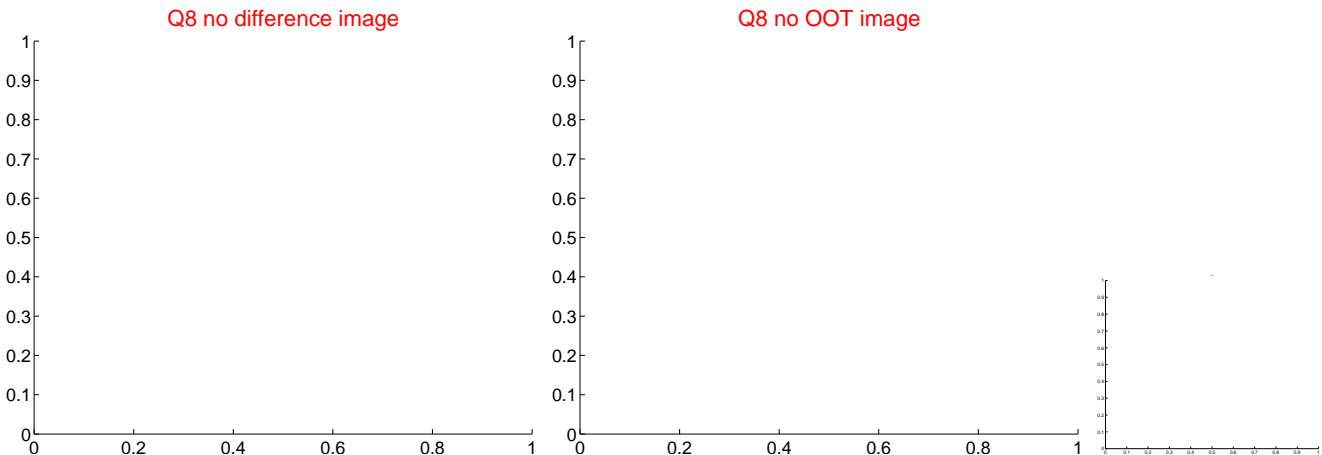
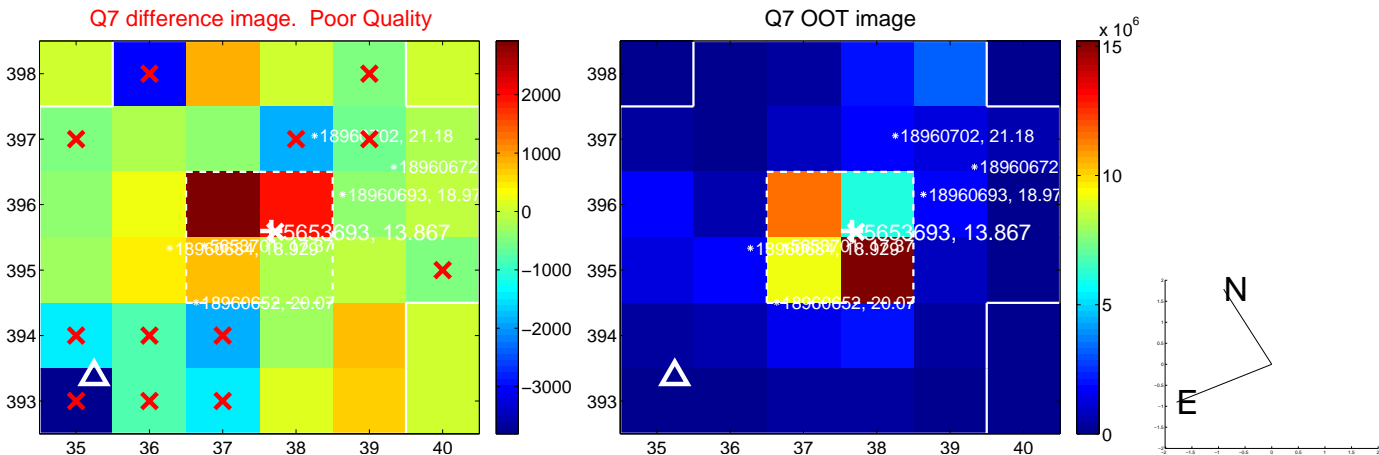
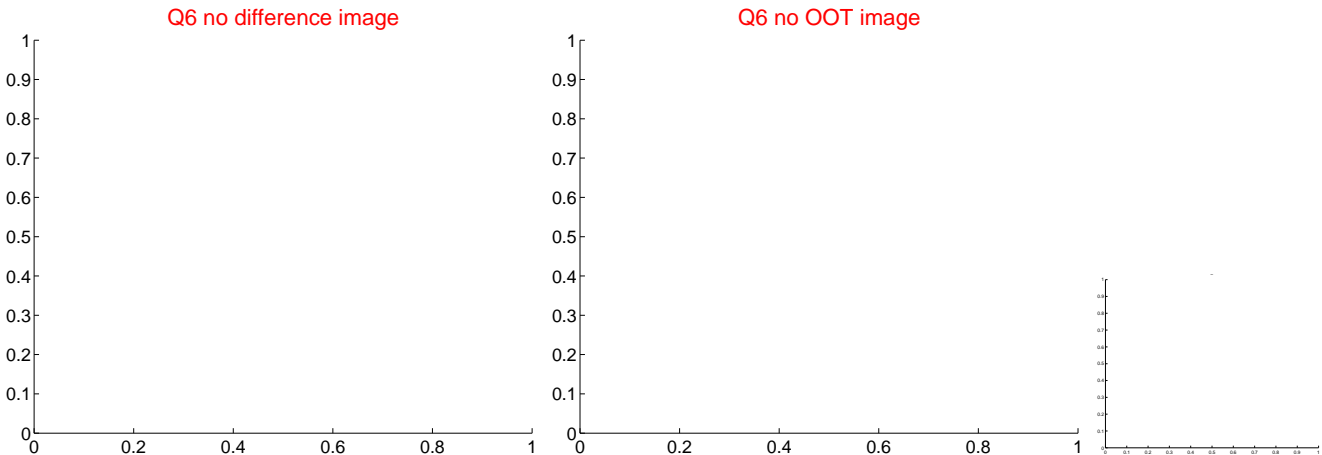
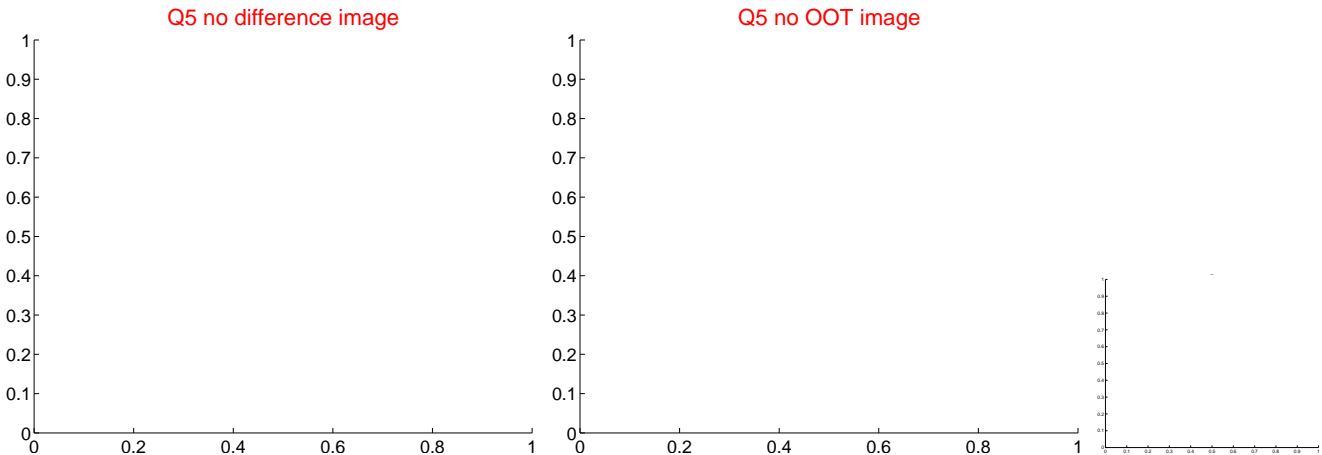


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

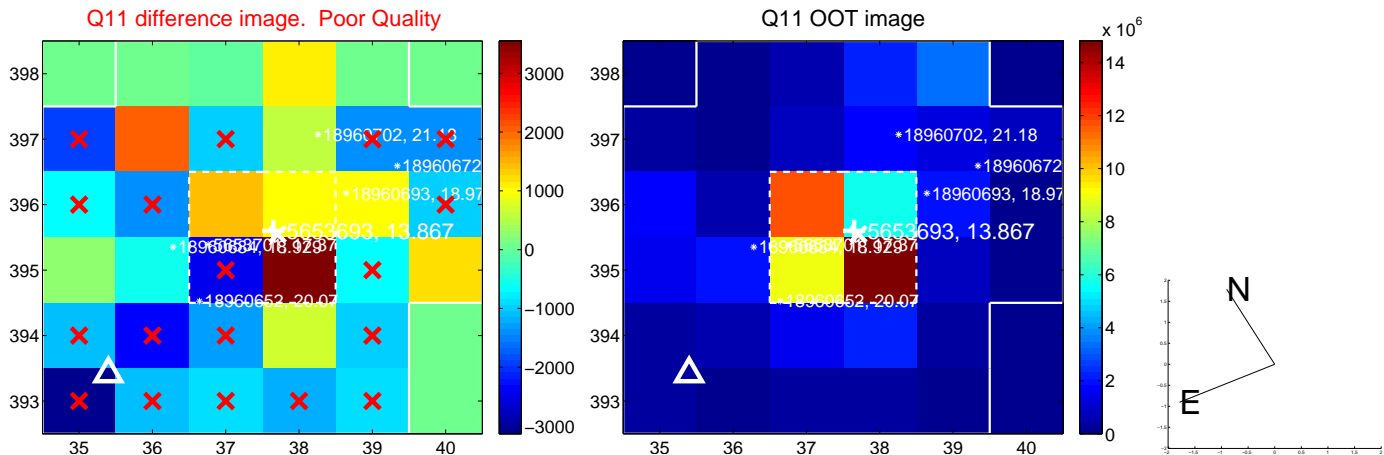
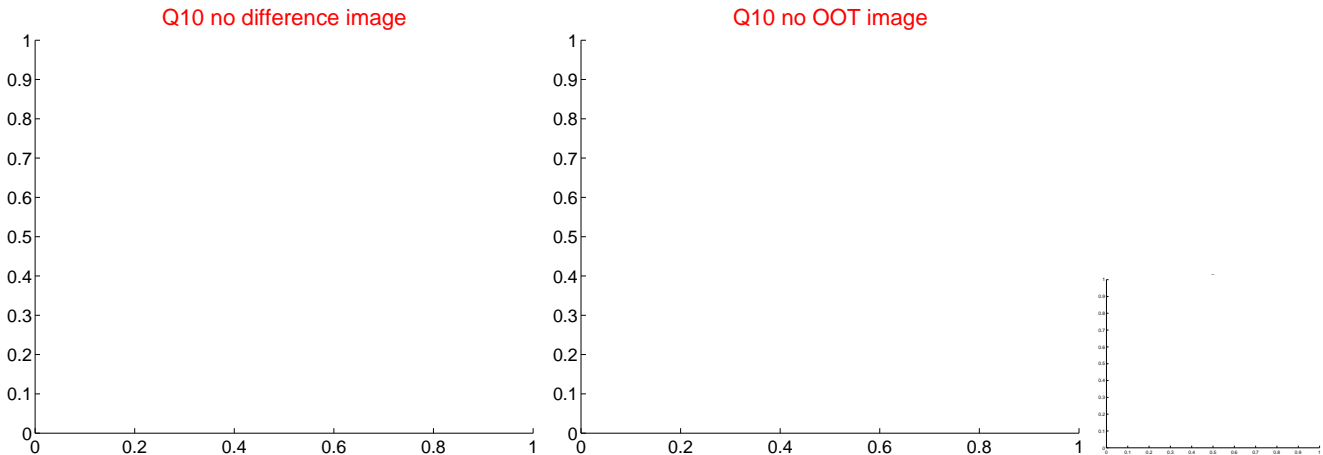
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



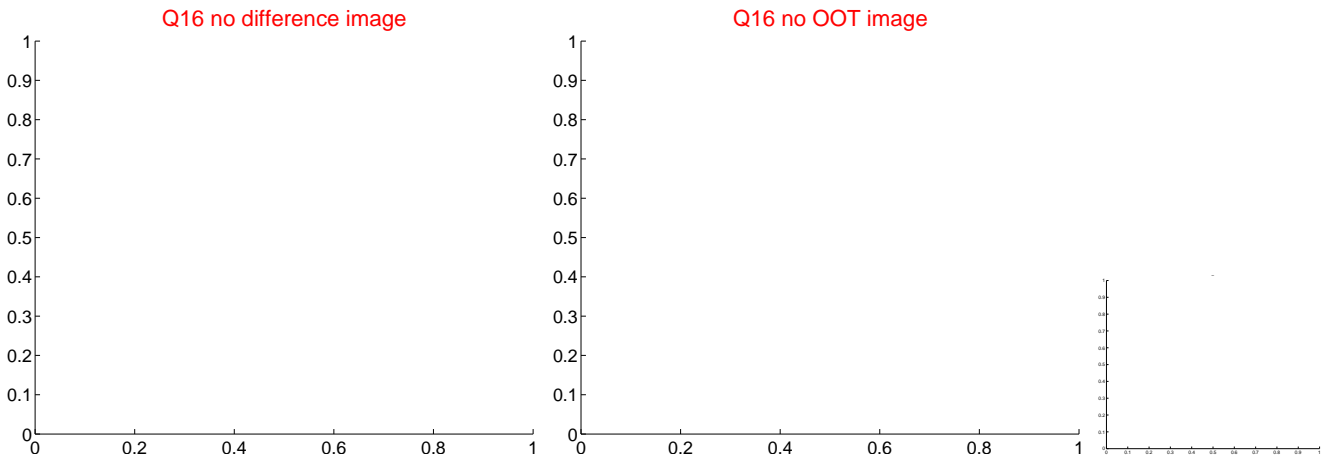
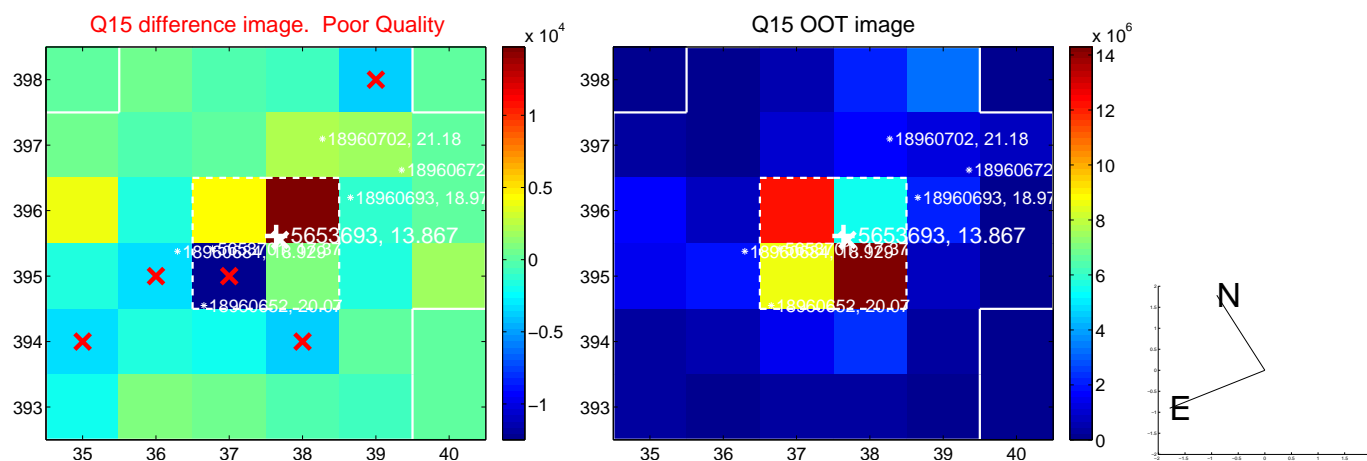
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



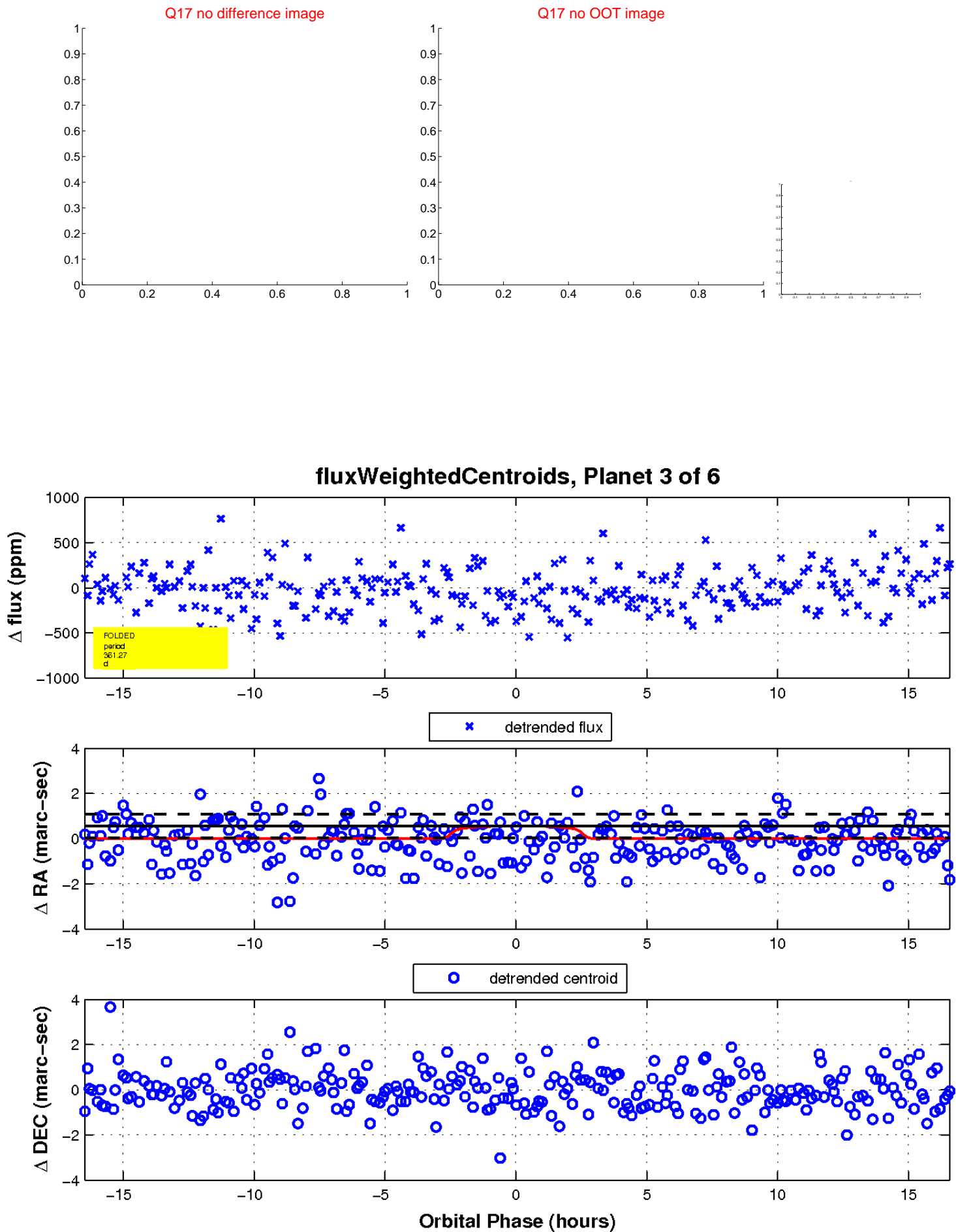
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value



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

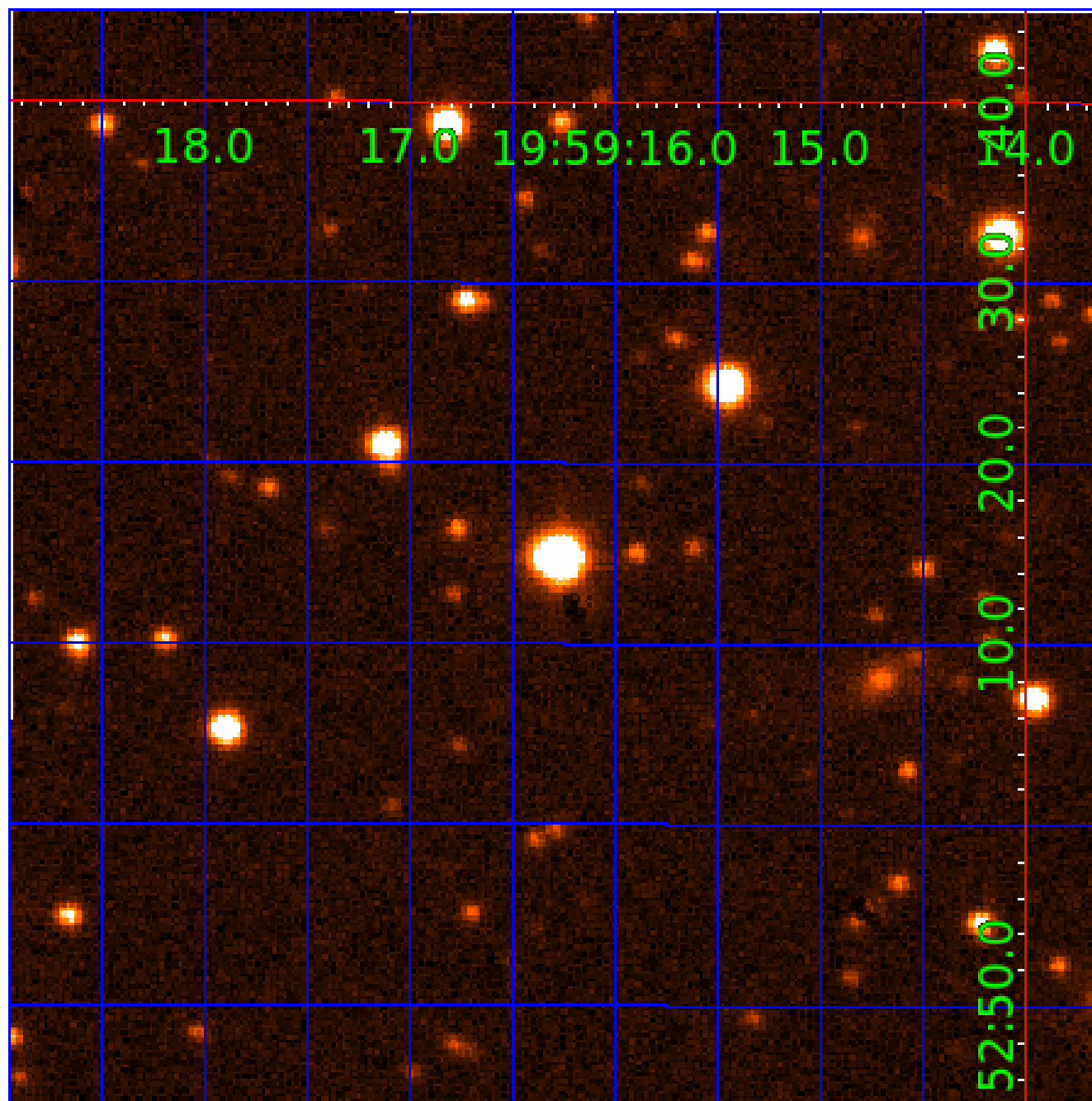


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005653693

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})
005653693-01	OBS	No	0.676527	131.643937	36.9	3.889	12.9	12.9	0.72	5127	0.44	1824.43
005653693-02	OBS	No	114.150526	198.430118	363.2	6.550	11.6	7.8	0.72	5127	1.54	1.96
005653693-03	OBS	No	361.274292	311.946568	460.0	5.547	8.5	7.8	0.72	5127	1.80	0.42
005653693-04	OBS	No	103.711913	220.569321	269.5	9.016	7.6	7.1	0.72	5127	1.32	2.22
005653693-05	OBS	No	98.672607	213.410086	539.7	1.312	7.5	7.2	0.72	5127	1.99	2.38
005653693-06	OBS	No	97.206434	146.343636	467.1	2.440	7.1	7.4	0.72	5127	1.83	2.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005653693-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
005653693-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005653693-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005653693-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
005653693-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_TRACKER—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST
005653693-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_UNRESOLVED_OFFSET

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

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

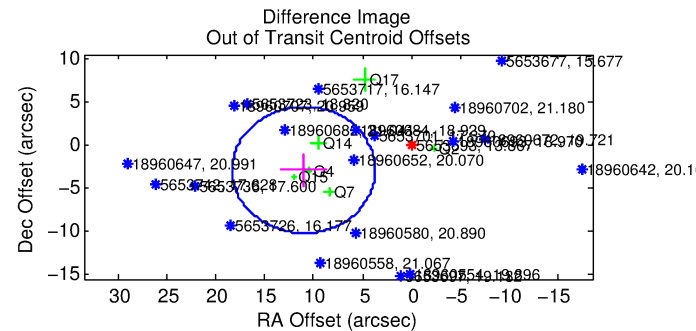
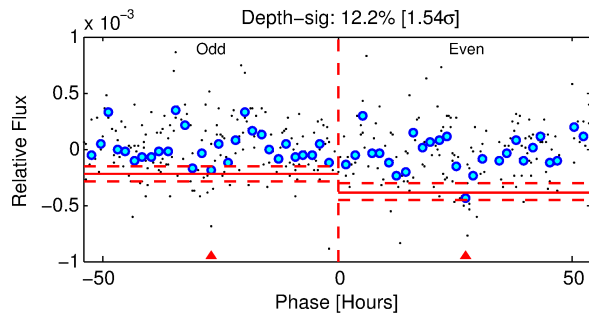
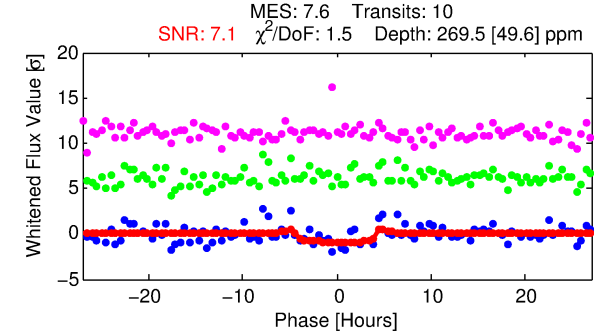
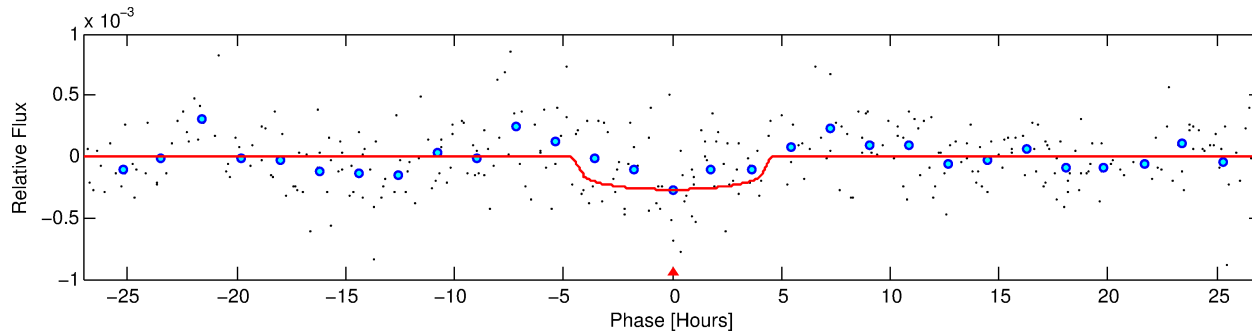
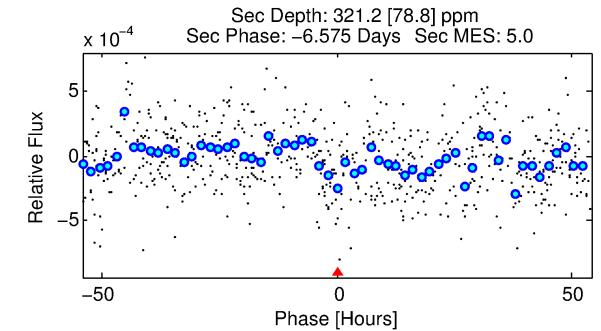
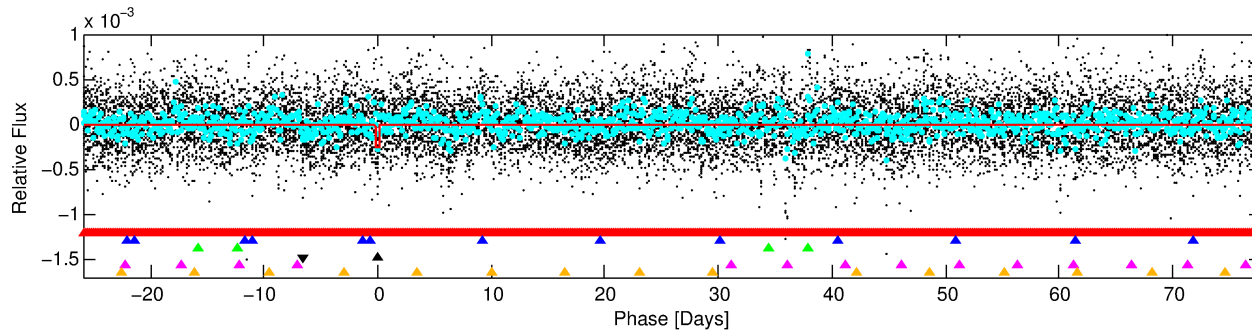
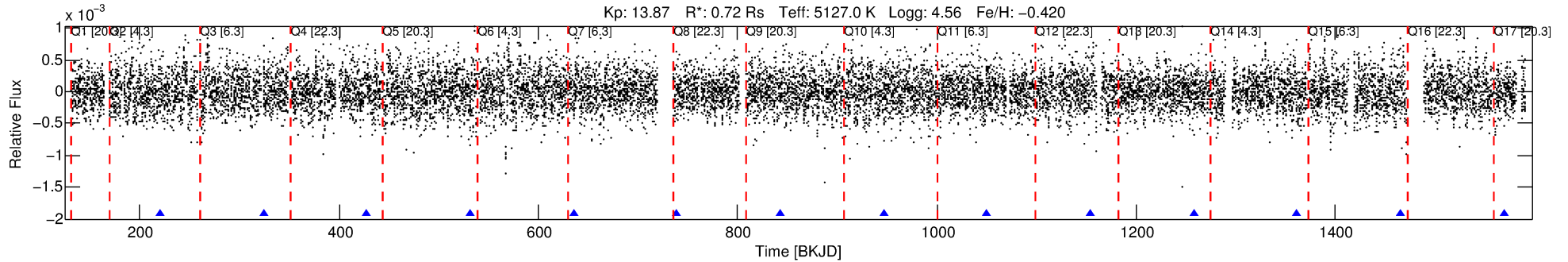
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005653693-04

No Significant Match Found

DV One-Page Summary

KIC: 5653693 Candidate: 4 of 6 Period: 103.712 d



DV Fit Results:

Period = 103.71191 [0.00343] d
Epoch = 220.5693 [0.0237] BKJD
Rp/R* = 0.0167 [0.0161]
a/R* = 56.23 [213.14]
b = 0.79 [1.83]
Seff = 2.22 [0.42]
Teq = 311 [15] K
Rp = 1.32 [1.28] Re
a = 0.3820 [0.0358] AU
Ag = 14844.04 [28998.85] [0.51σ]
Teffp = 5314 [2593] K [1.93σ]

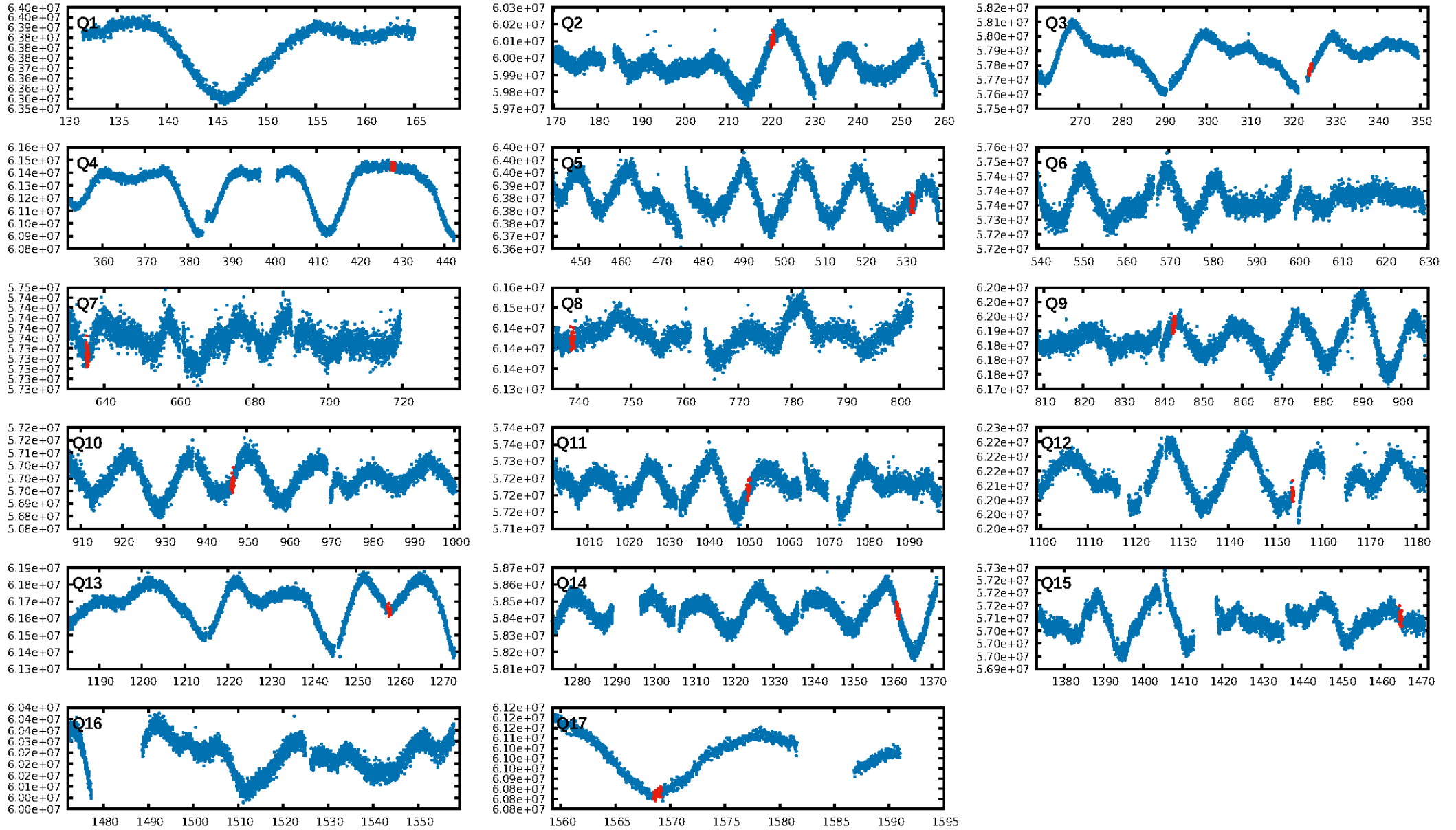
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [13.27σ]
LongPeriod-sig: 100.0% [22.48σ]
ModelChiSquare2-sig: 7.9%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: 1.08e-09
RollingBand-fgt: 1.00 [9/9]
GhostDiagnostic-chr: 1.334
Centroid-sig: N/A
Centroid-so: 1.302 arcsec [1.42σ]
OotOffset-rm: 11.400 arcsec [4.68σ]
KicOffset-rm: 11.526 arcsec [4.84σ]
OotOffset-st: 2/2/1/1 [6]
KicOffset-st: 2/2/1/1 [6]
DiffImageQuality-fgm: 0.17 [1/6]
DiffImageOverlap-fno: 0.00 [0/12]

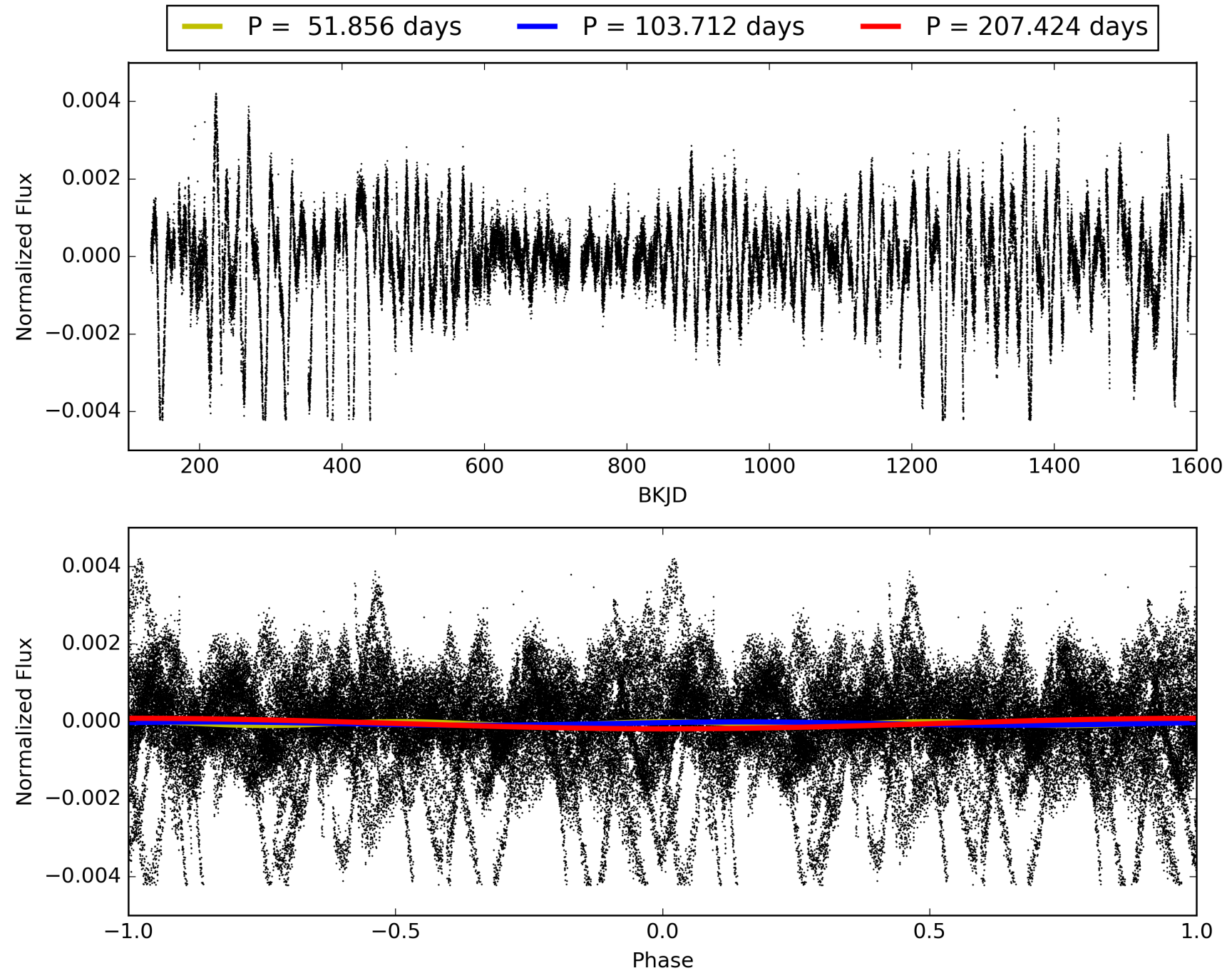
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 04:25:05 Z

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

TCE 005653693-04, PDC Light Curves

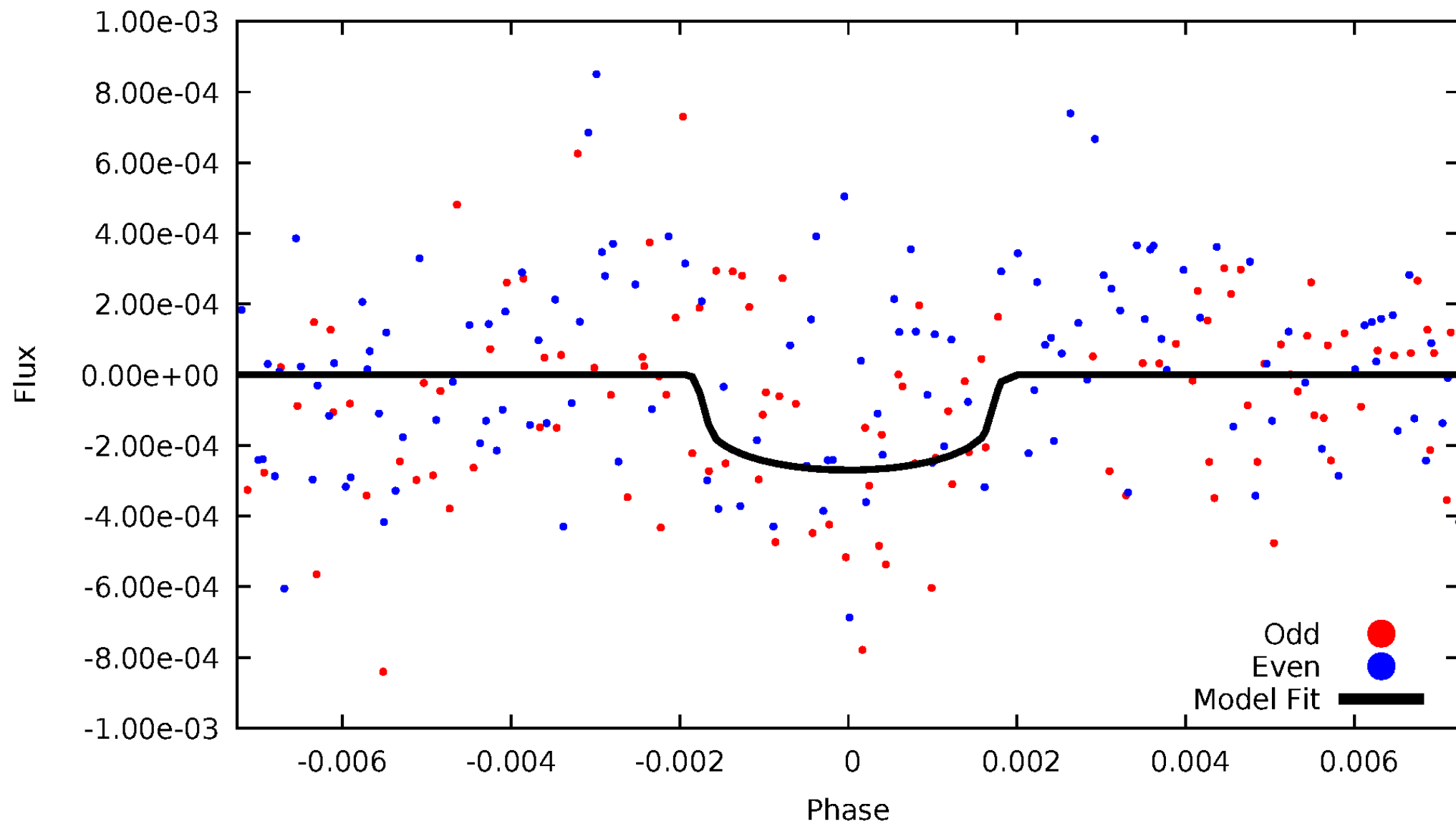


TCE 005653693-04



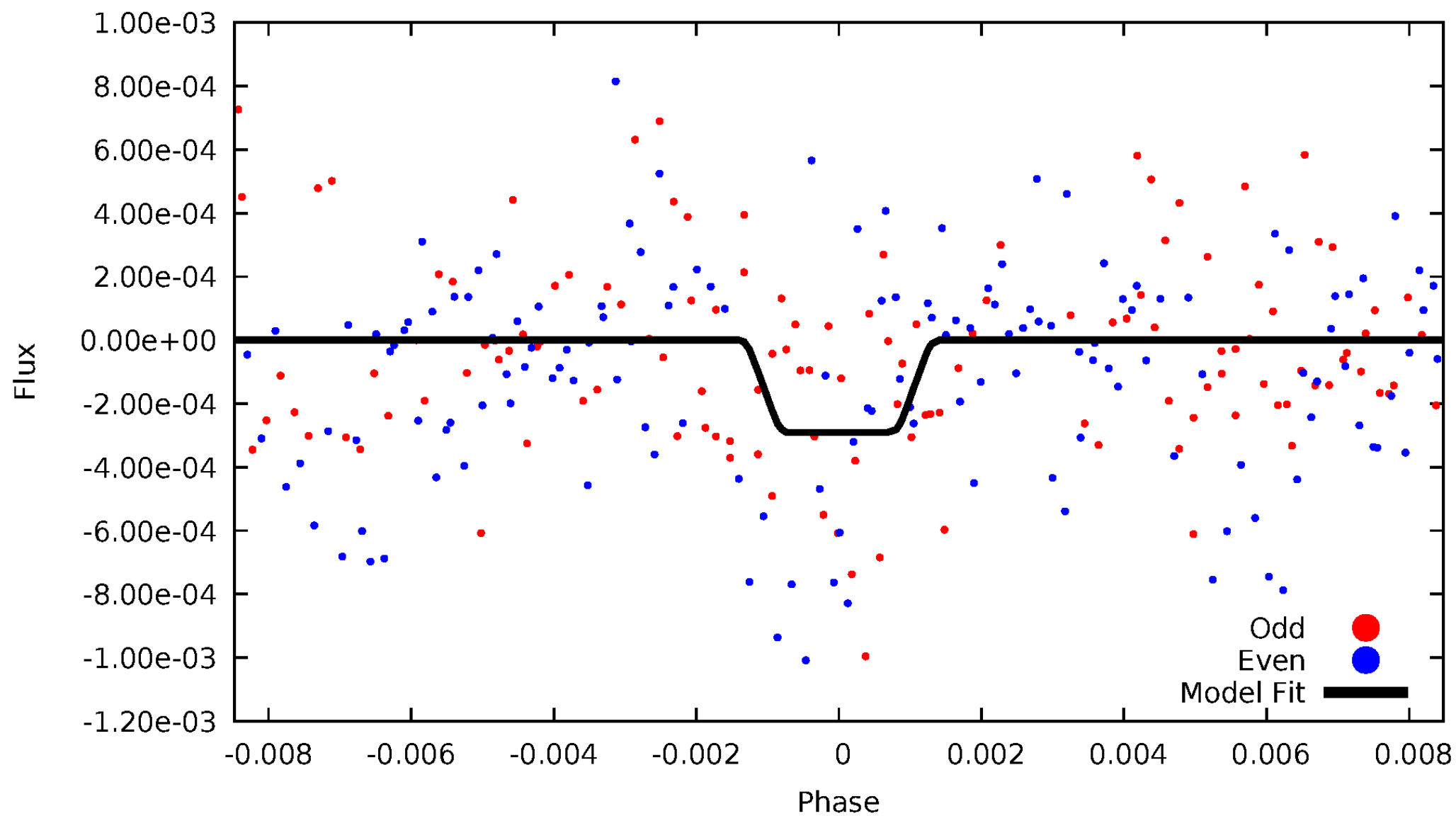
DV Odd/Even

TCE 005653693-04



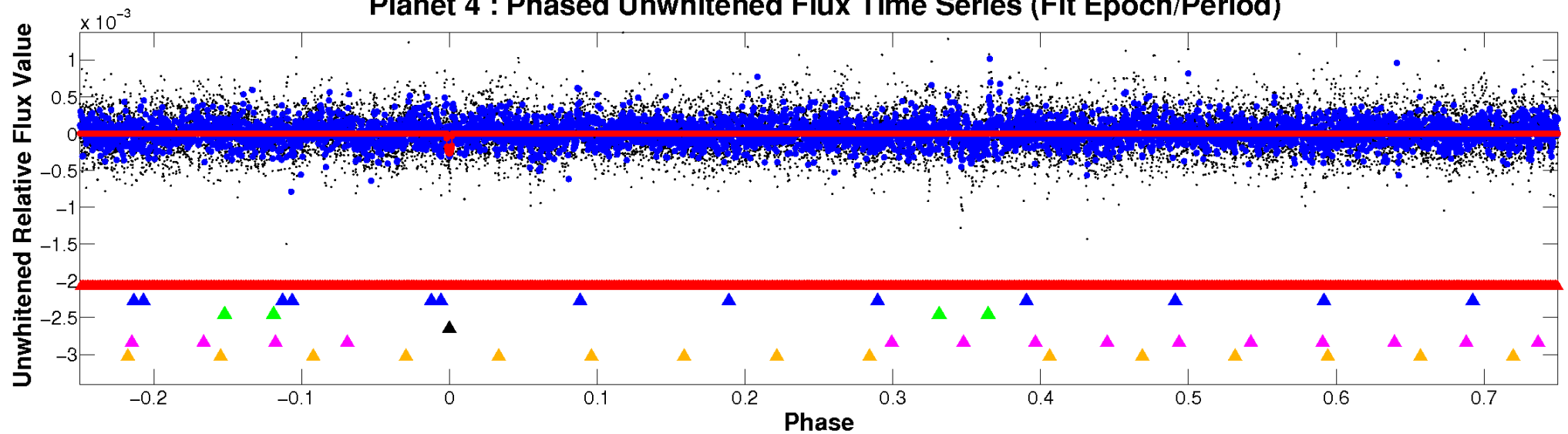
ALT Odd/Even

TCE 005653693-04

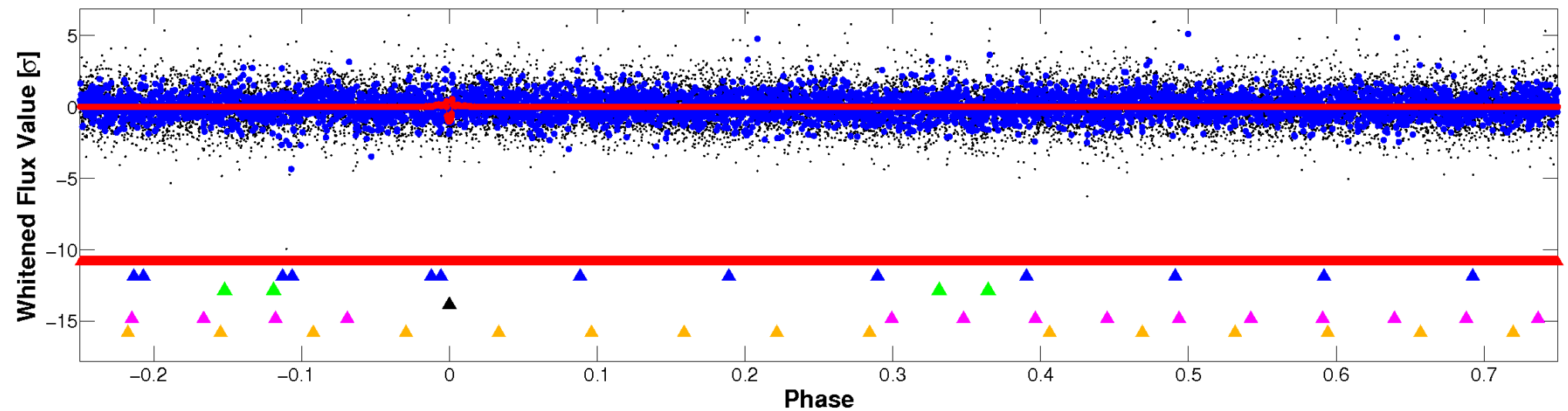


Non-Whitened Vs. Whitened Light Curve

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

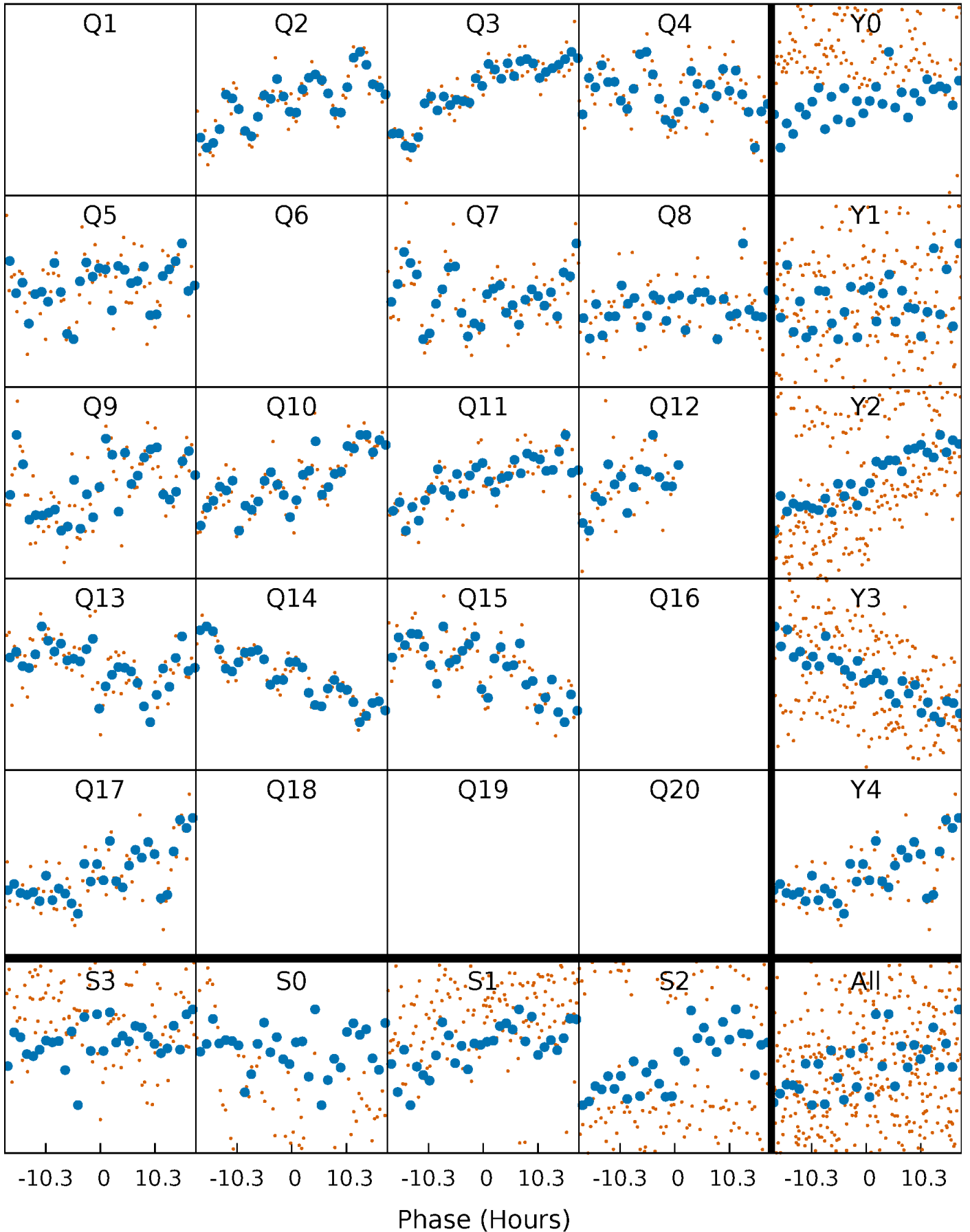


Planet 4 : Phased Whitened Flux Time Series (Fit Epoch/Period)



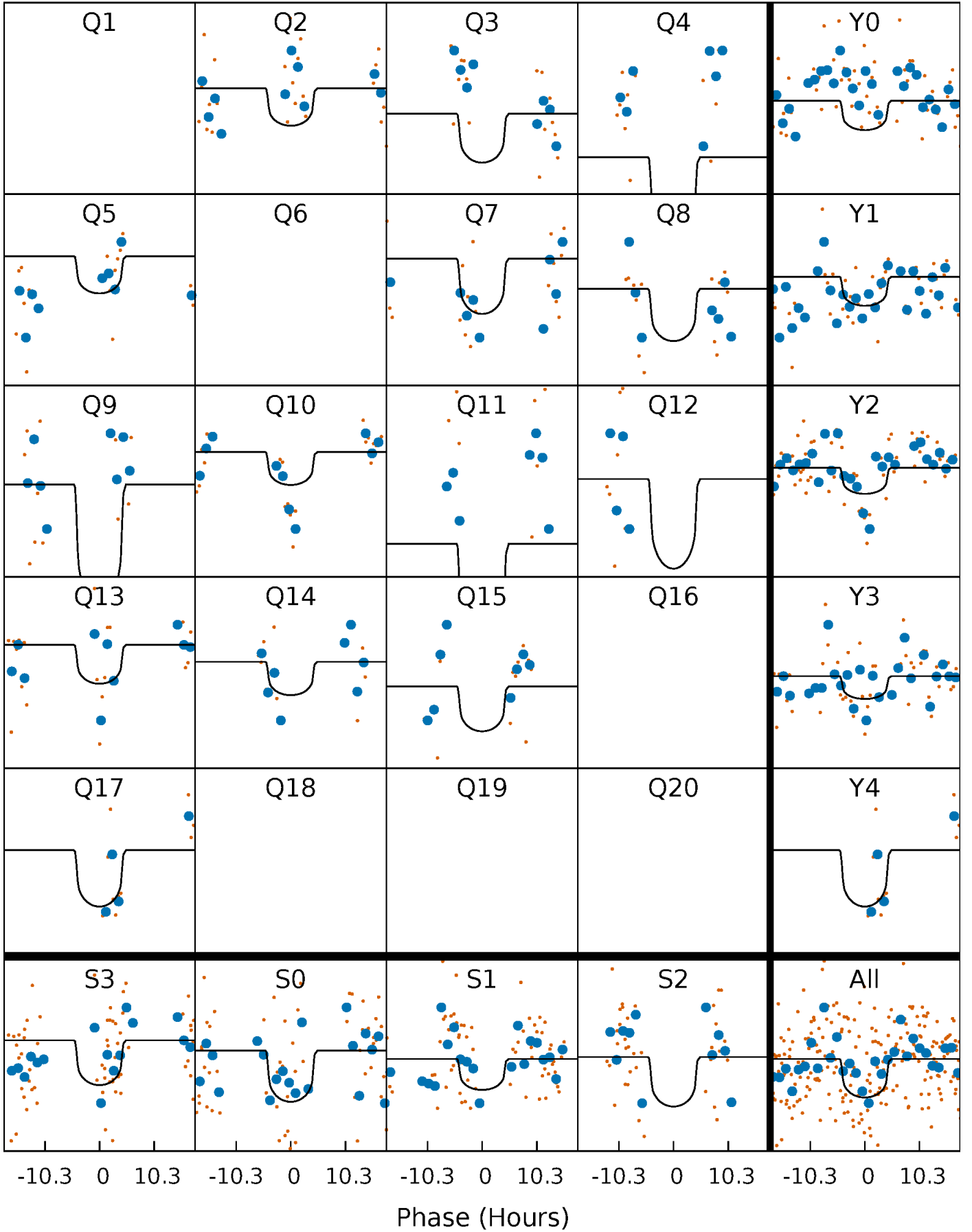
PDC Quarter-Phased Transit Curves

TCE 005653693-04 P=103.711913 Days $T_0=220.569321$ (BKJD)



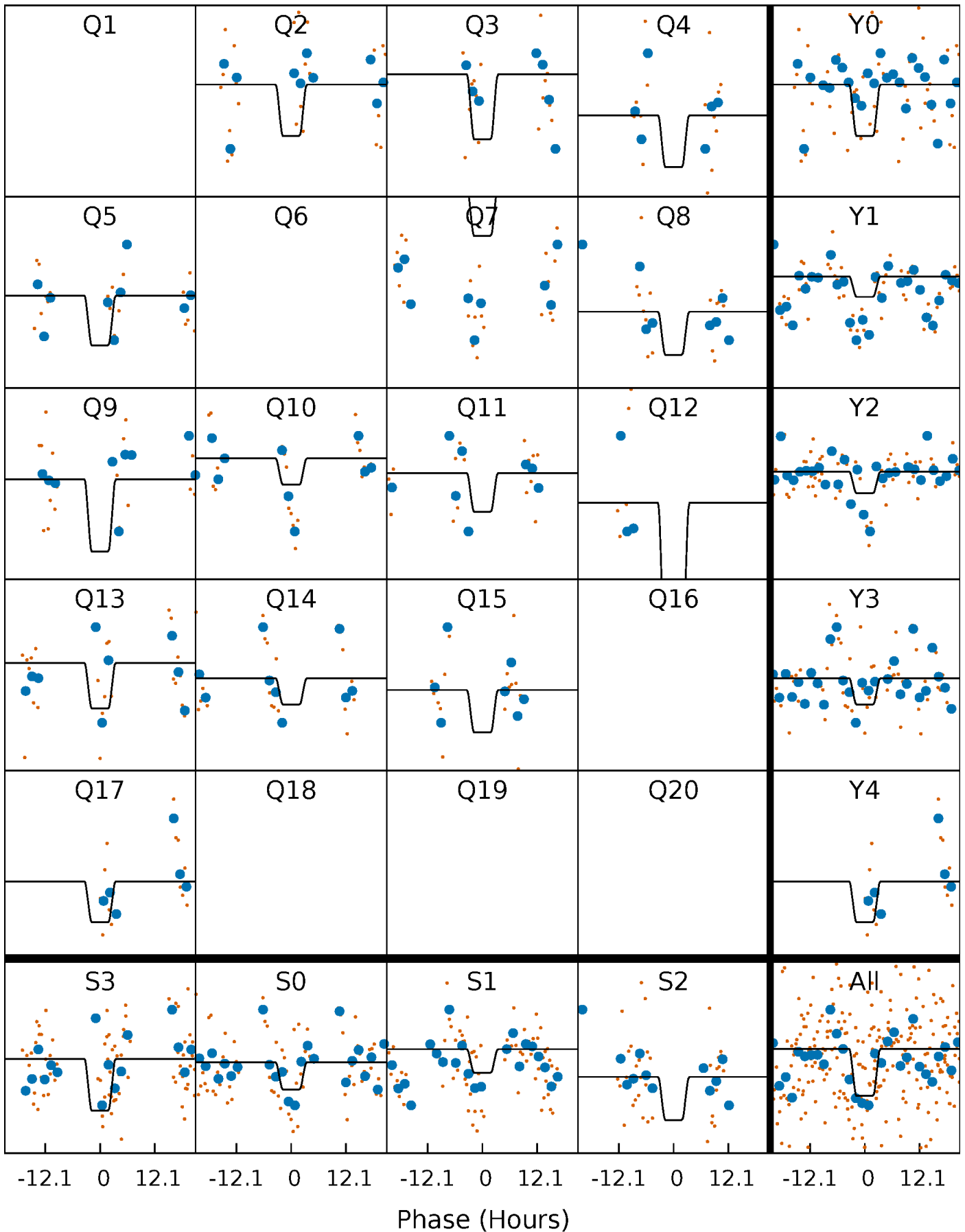
DV Quarter-Phased Transit Curves

TCE 005653693-04 $P=103.711913$ Days $T_0=220.569321$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

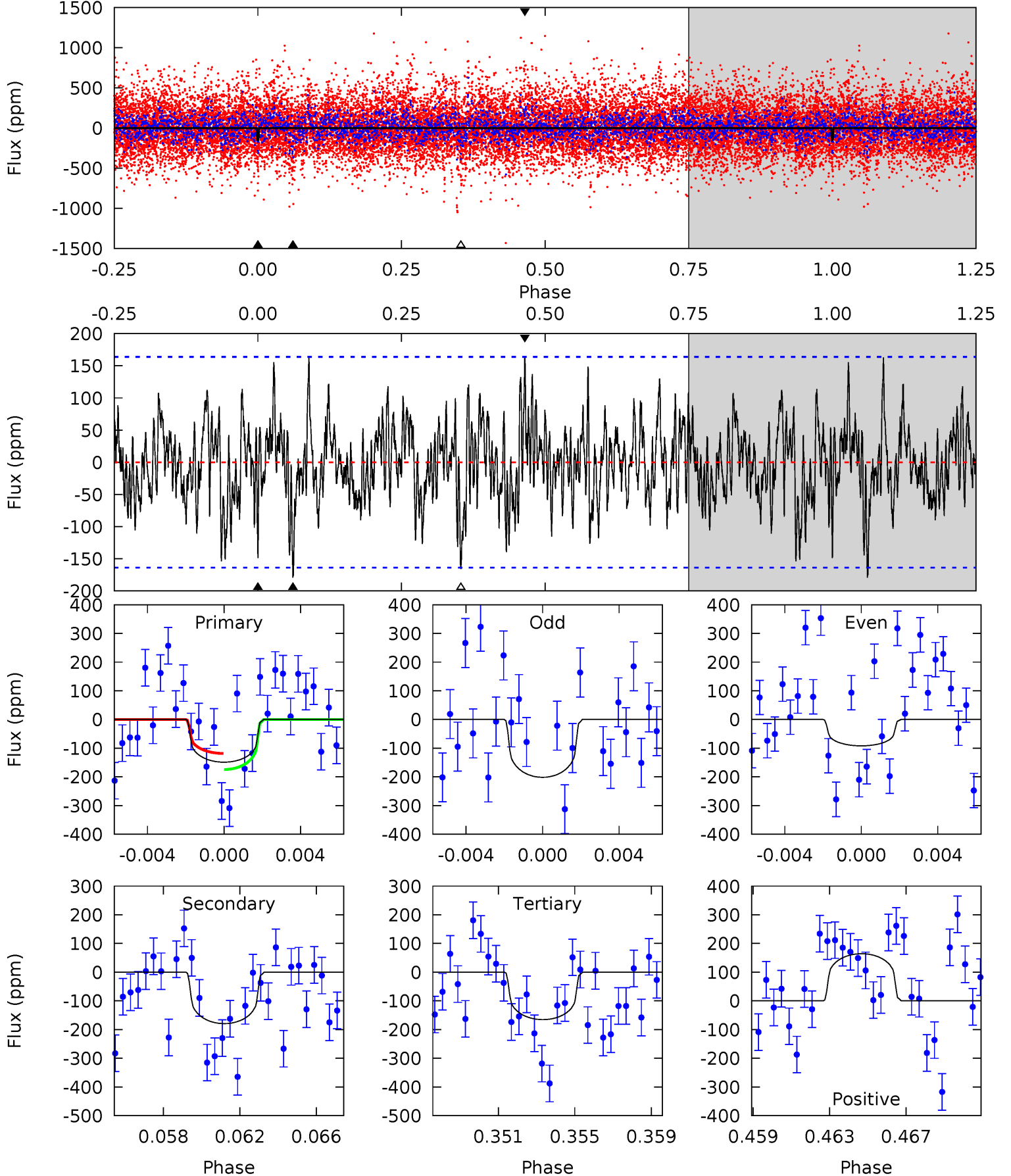
TCE 005653693-04 P=103.719249 Days $T_0=220.496171$ (BKJD)



DV Model-Shift Uniqueness Test

005653693-04, P = 103.711913 Days, E = 116.857408 Days

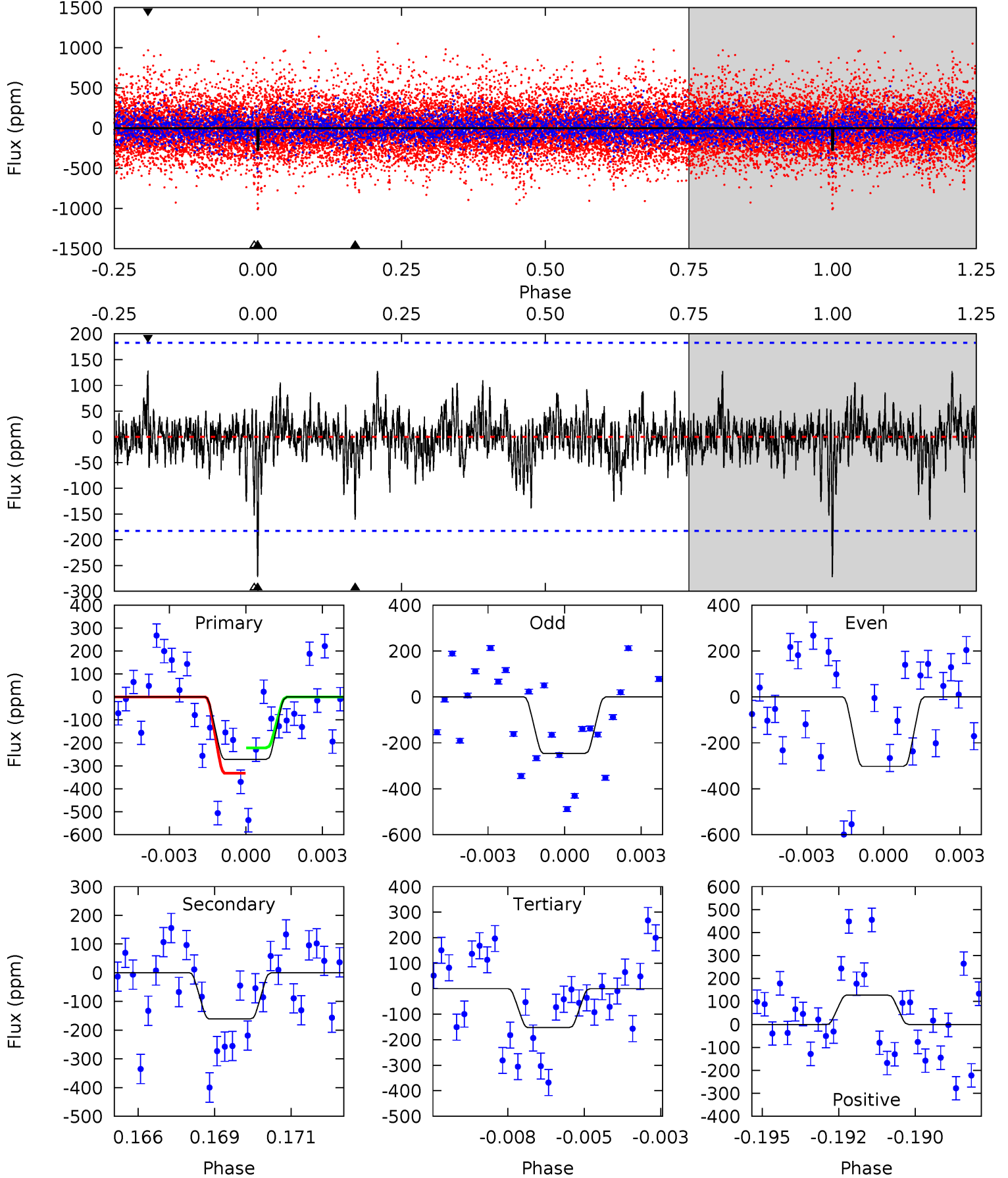
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
4.73	5.70	5.26	5.23	5.21	2.89	1.70	-0.52	-0.49	0.44	0.47	1.74	0.75	0.48	0.89



Alt Model-Shift Uniqueness Test

005653693-04, P = 103.719249 Days, E = 116.776922 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.86	4.64	4.40	3.68	5.28	3.01	1.01	3.46	4.18	0.24	0.96	0.80	2.71	0.32	1.61



Stellar Parameters For KIC 005653693

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5127^{+153}_{-138}	$4.558^{+0.084}_{-0.052}$	$-0.420^{+0.350}_{-0.300}$	$0.724^{+0.074}_{-0.074}$	$0.690^{+0.095}_{-0.044}$	$2.565^{+0.853}_{-0.446}$
	+3%/-3%	+2%/-1%	+83%/-71%	+10%/-10%	+14%/-6%	+33%/-17%
Source	PHO1	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 005653693-04 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-179 ± 31	$1.52^{+1.15}_{-0.92}$	434^{+16}_{-17}	4395^{+2561}_{-801}	6199^{+40441}_{-4285}
Alt.	-161 ± 35	$1.57^{+1.21}_{-0.95}$	434^{+16}_{-16}	4258^{+2084}_{-779}	5165^{+28329}_{-3536}

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 $A_{obs} \gg 1.0$

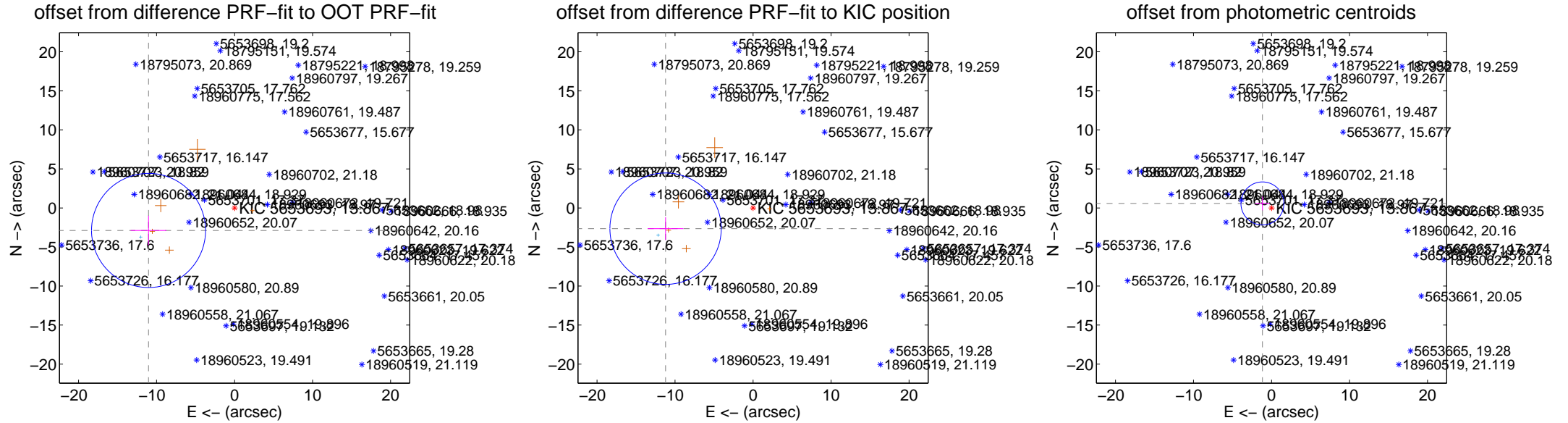
DV Centroid Data

Supplemental centroid analysis for 005653693-04. Kepler magnitude: 13.87. Transit SNR 7.06

There are 1 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	11.400 ± 2.436	4.68	11.030 ± 2.291	-2.882 ± 1.886
PRF-fit source offset from KIC position	11.526 ± 2.379	4.84	11.215 ± 2.286	-2.655 ± 1.457
photometric centroid source offset	1.30 ± 0.92	1.42	1.17 ± 0.93	0.58 ± 0.88



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.

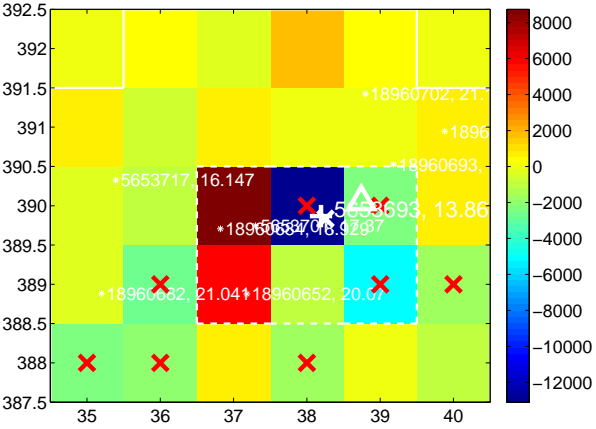
Q1 no difference image



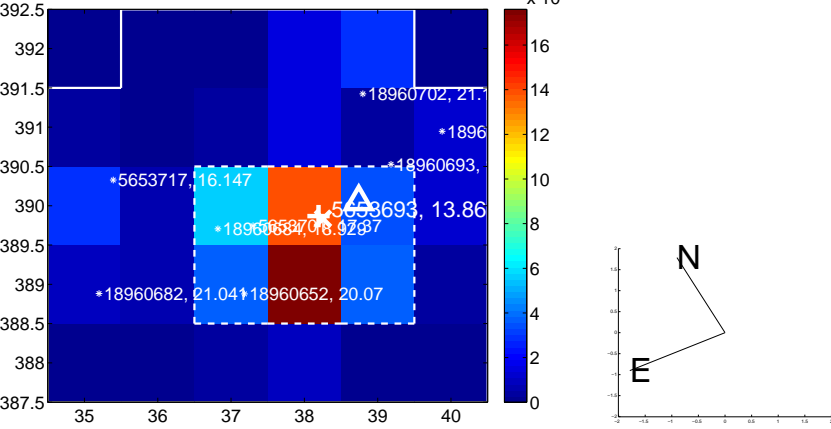
Q1 no OOT image



Q2 difference image. Poor Quality



Q2 OOT image



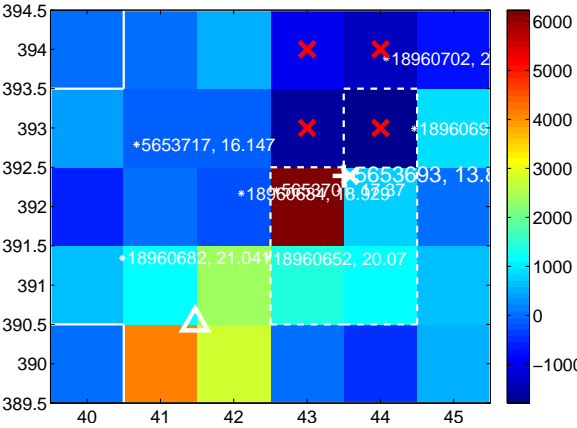
Q3 no difference image



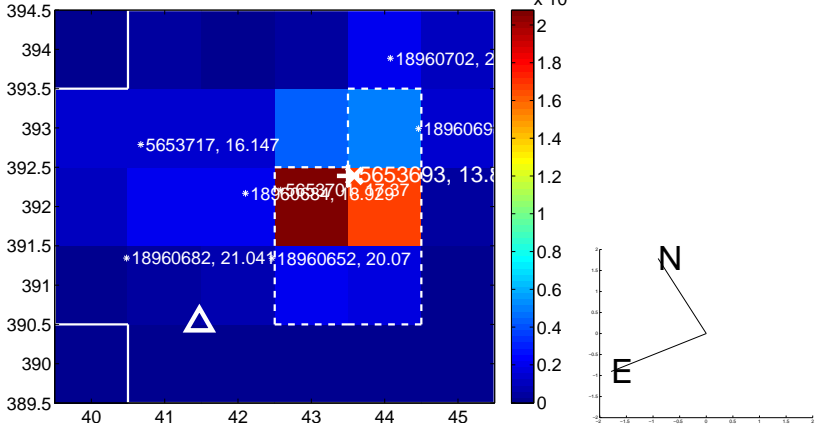
Q3 no OOT image



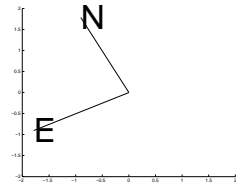
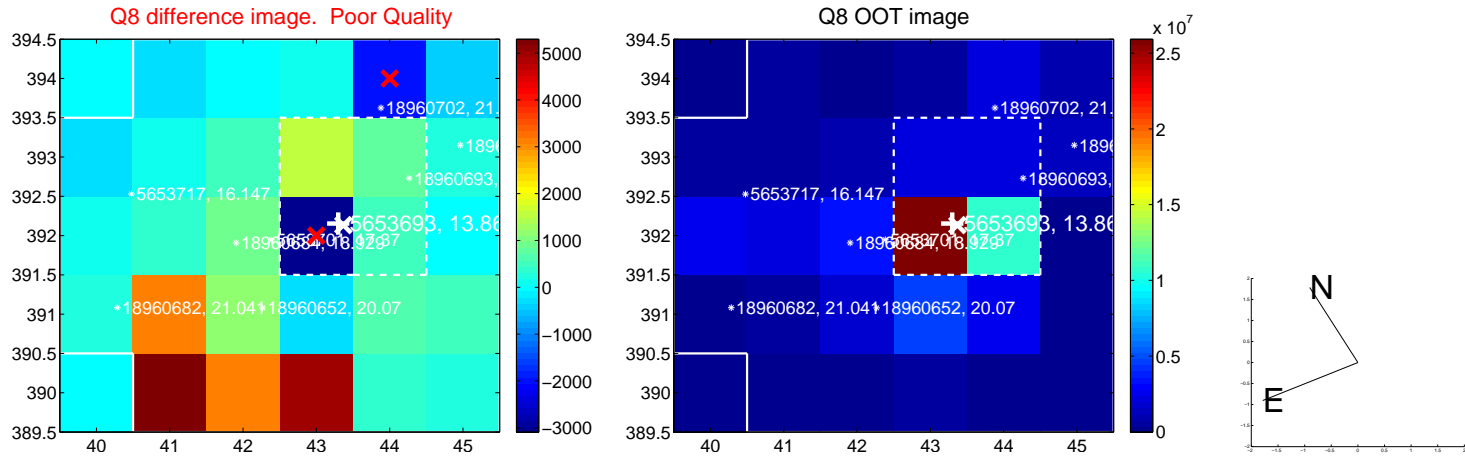
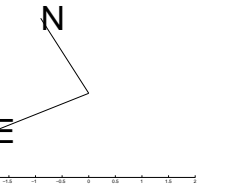
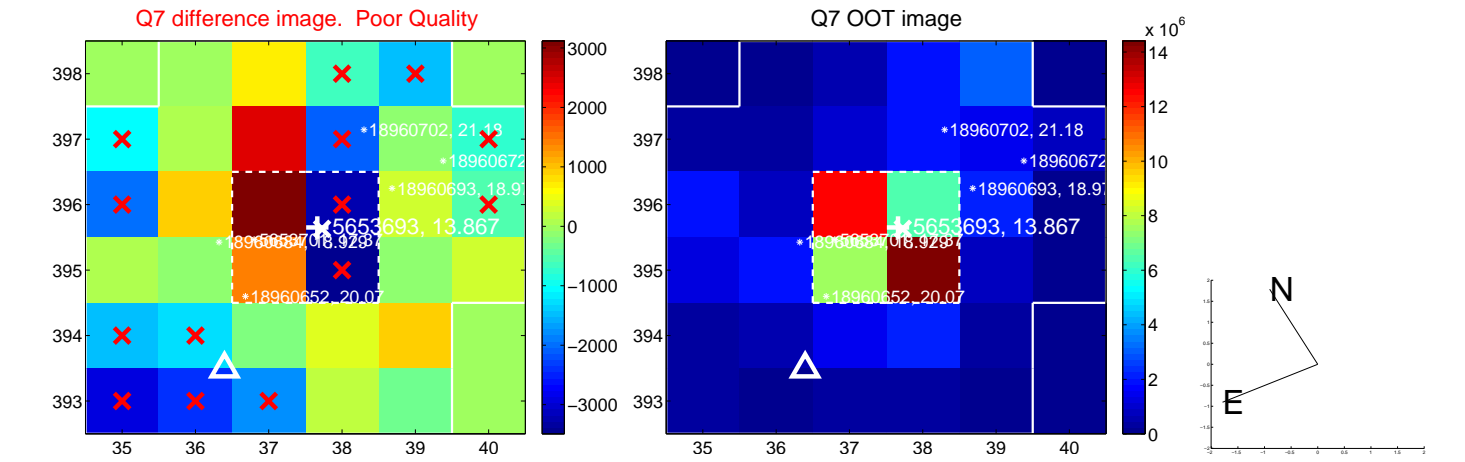
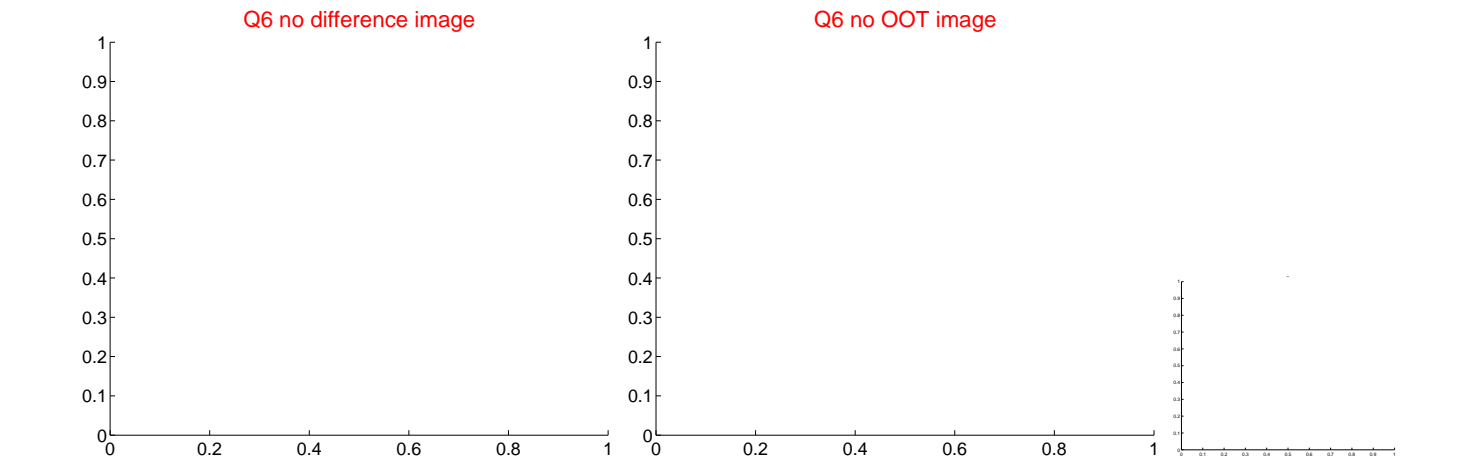
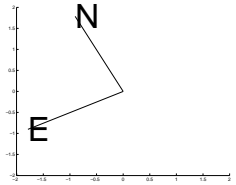
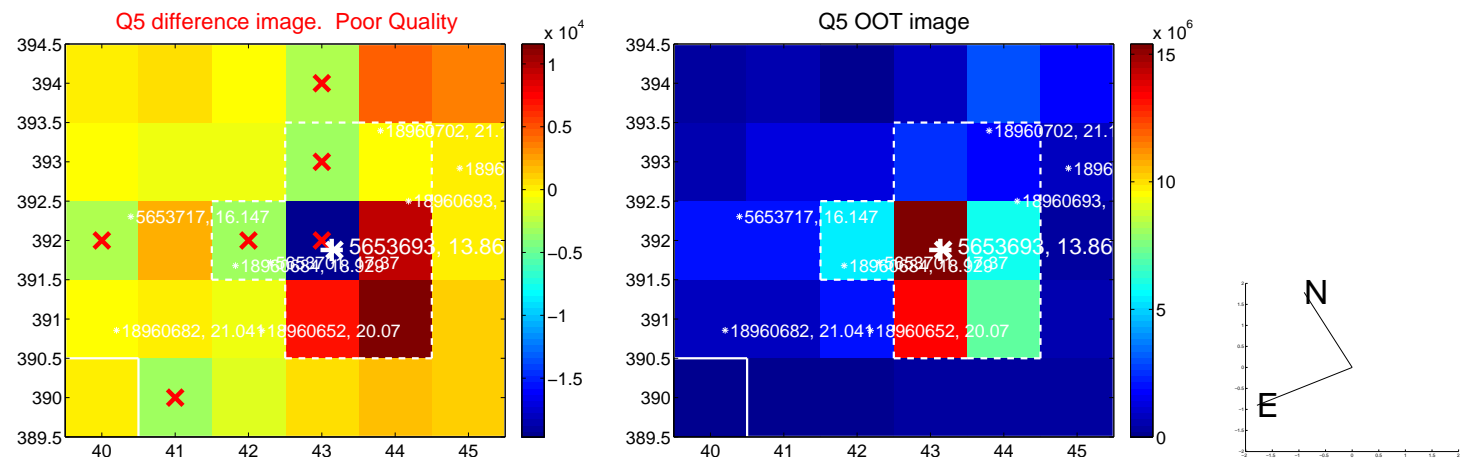
Q4 difference image. Poor Quality



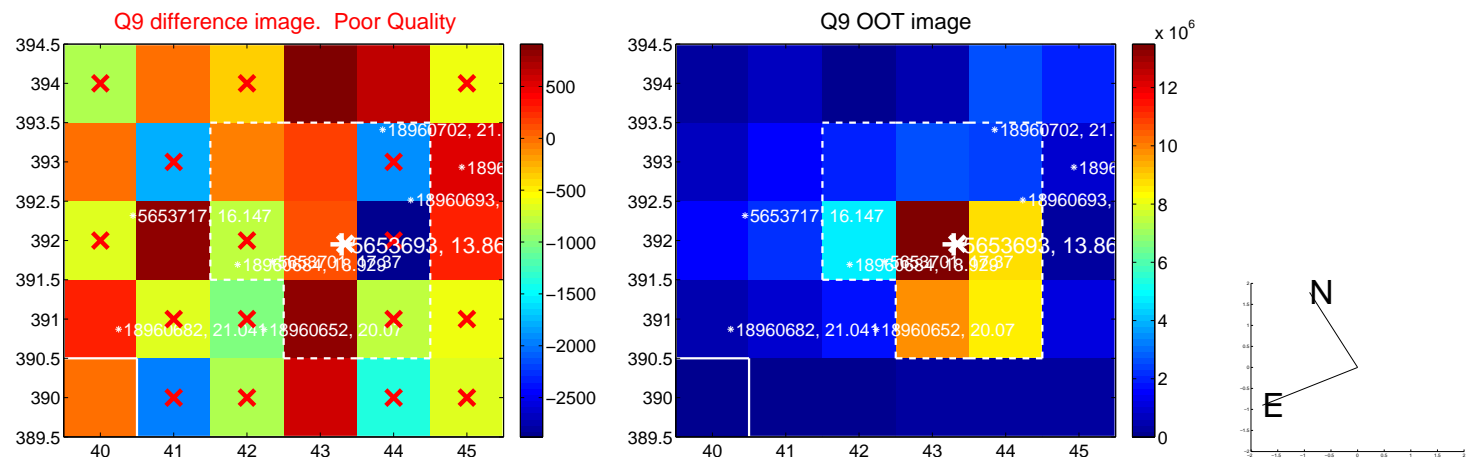
Q4 OOT image



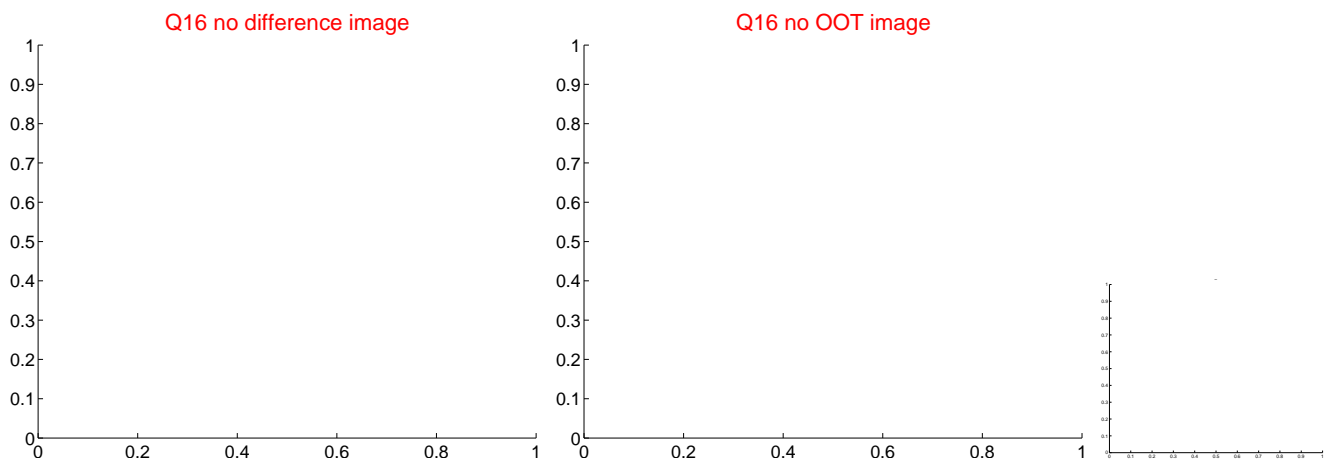
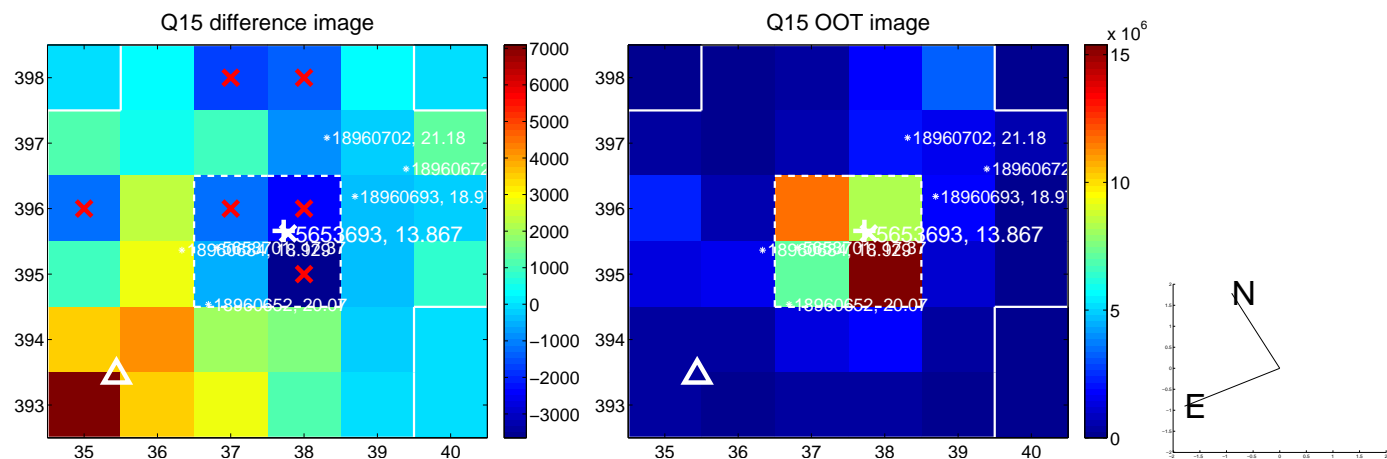
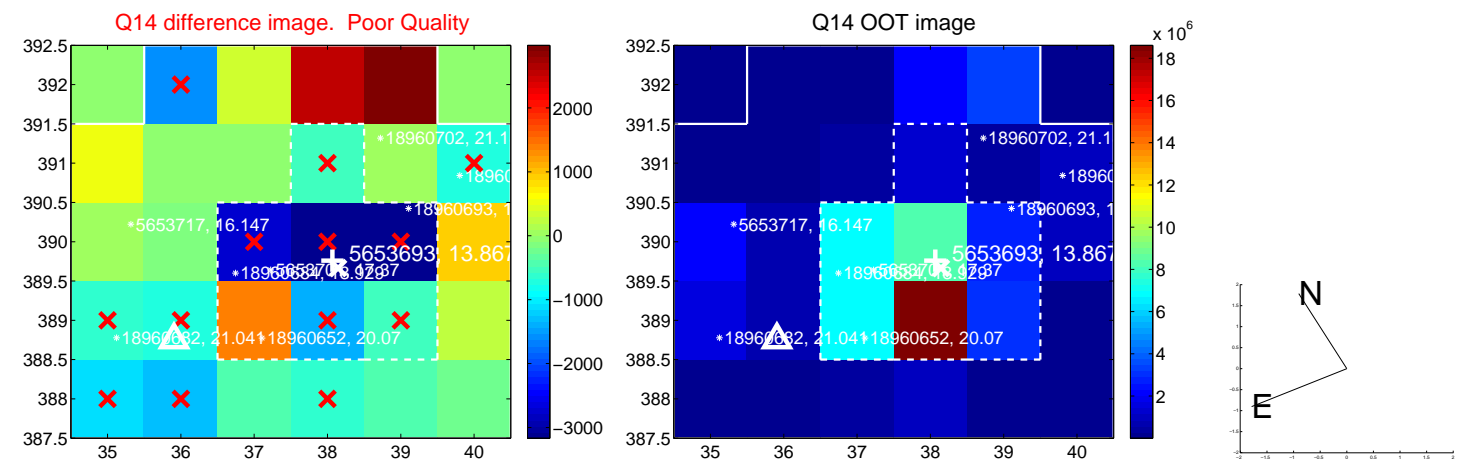
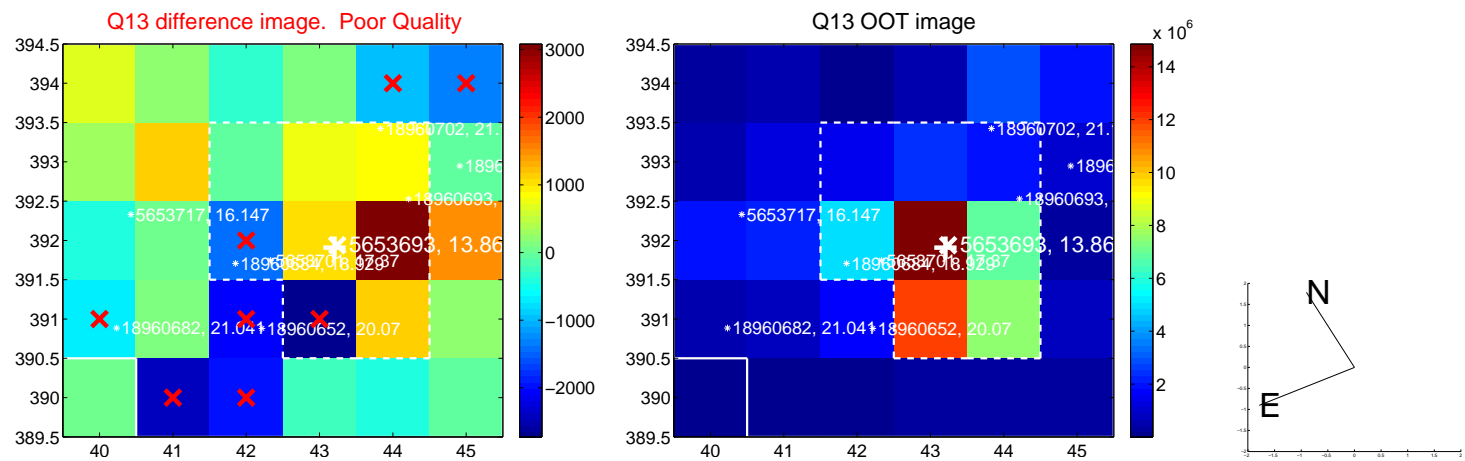
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



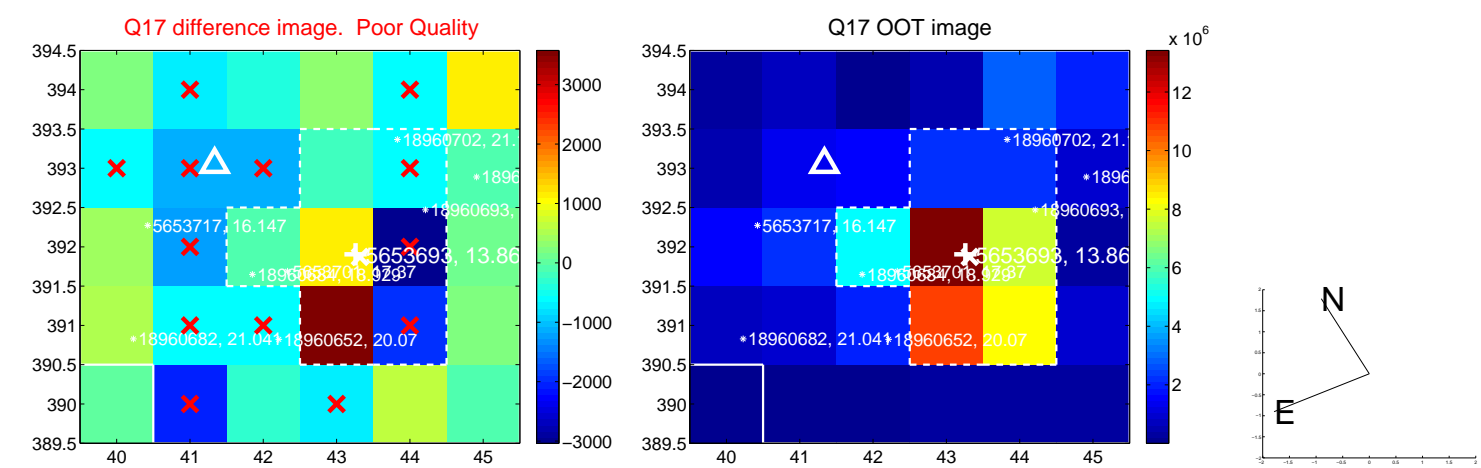
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



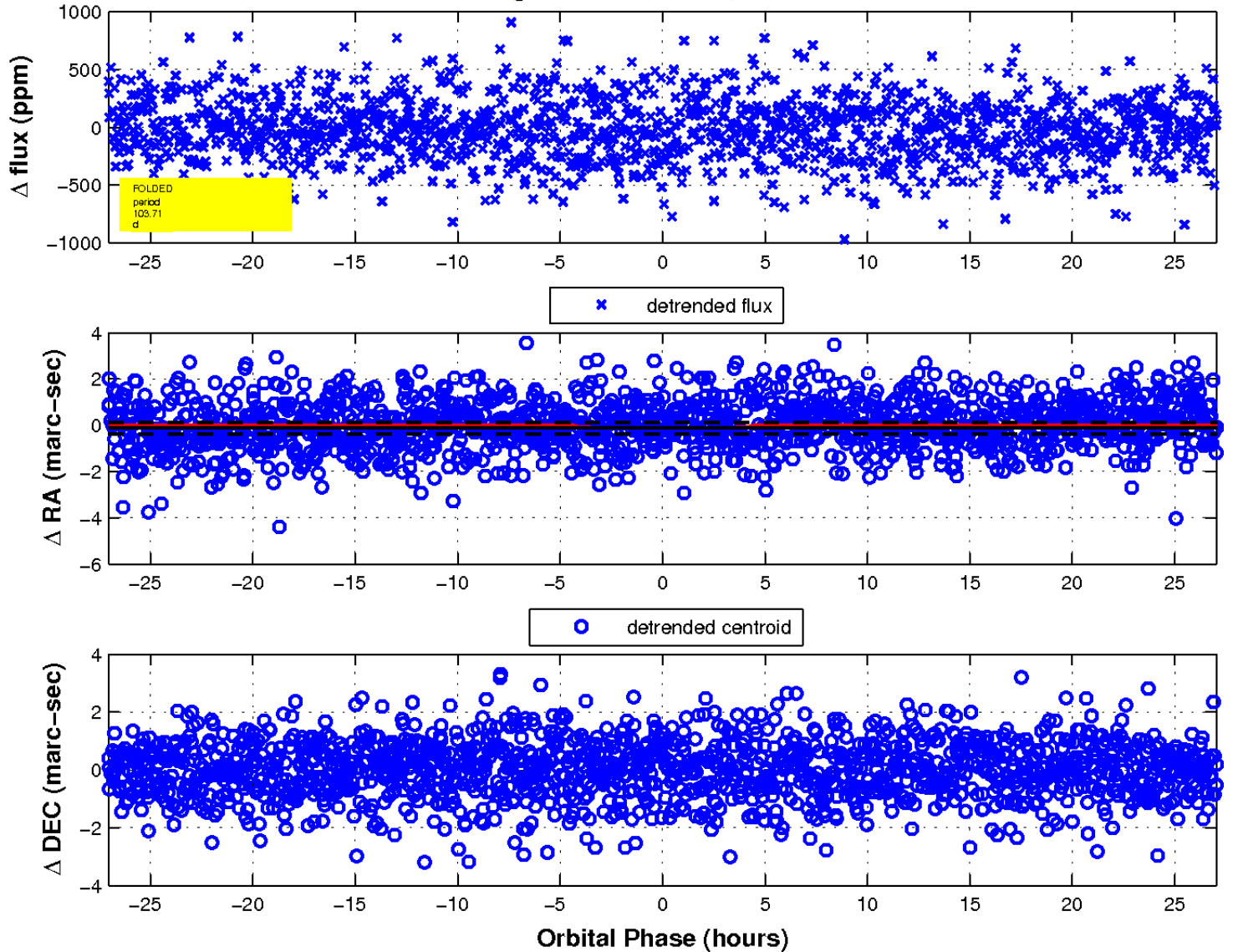
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

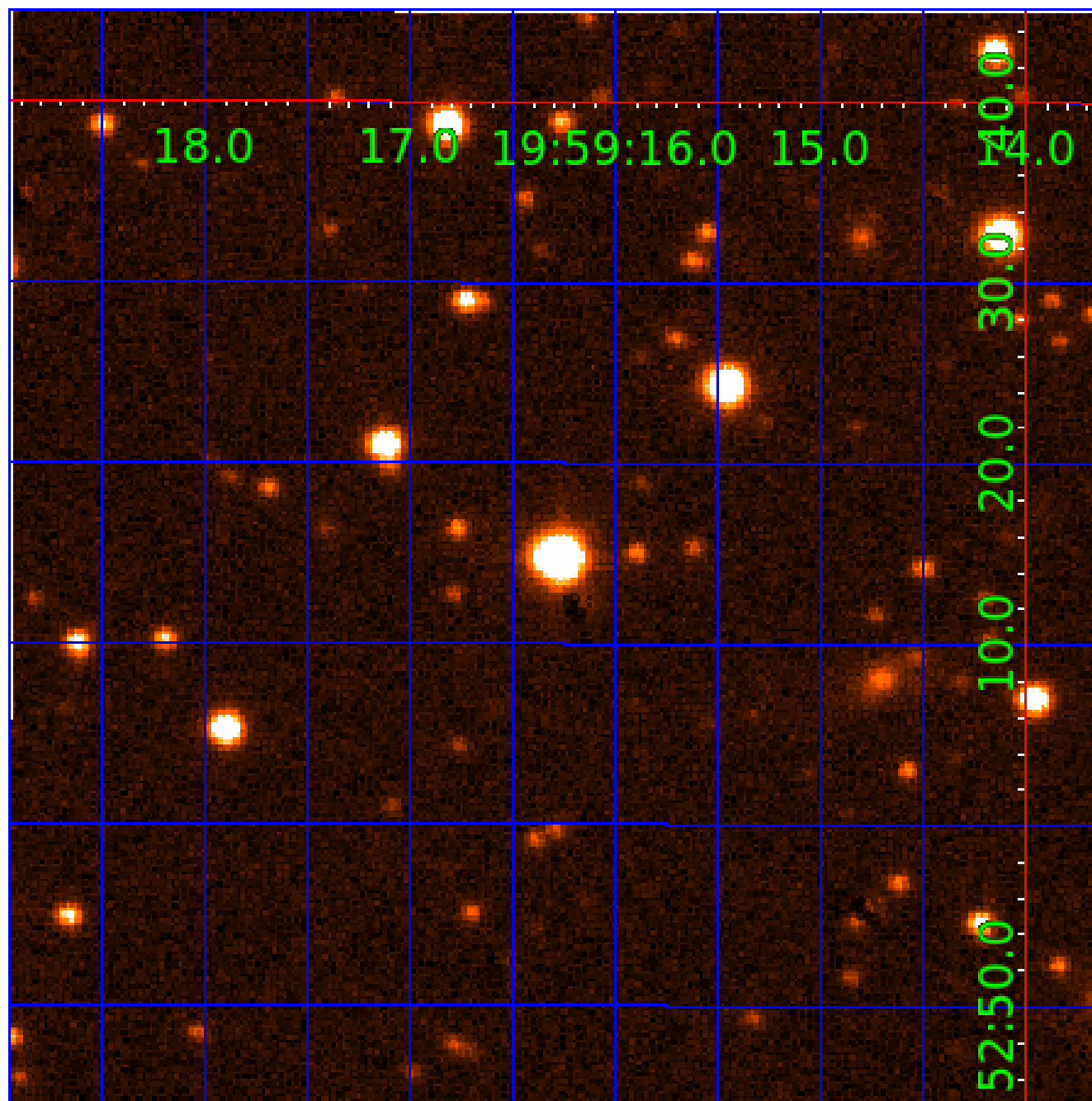


fluxWeightedCentroids, Planet 4 of 6



UKIRT Image

Declination



KIC 005653693

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})
005653693-01	OBS	No	0.676527	131.643937	36.9	3.889	12.9	12.9	0.72	5127	0.44	1824.43
005653693-02	OBS	No	114.150526	198.430118	363.2	6.550	11.6	7.8	0.72	5127	1.54	1.96
005653693-03	OBS	No	361.274292	311.946568	460.0	5.547	8.5	7.8	0.72	5127	1.80	0.42
005653693-04	OBS	No	103.711913	220.569321	269.5	9.016	7.6	7.1	0.72	5127	1.32	2.22
005653693-05	OBS	No	98.672607	213.410086	539.7	1.312	7.5	7.2	0.72	5127	1.99	2.38
005653693-06	OBS	No	97.206434	146.343636	467.1	2.440	7.1	7.4	0.72	5127	1.83	2.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005653693-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
005653693-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005653693-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005653693-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
005653693-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_TRACKER—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST
005653693-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_UNRESOLVED_OFFSET

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

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

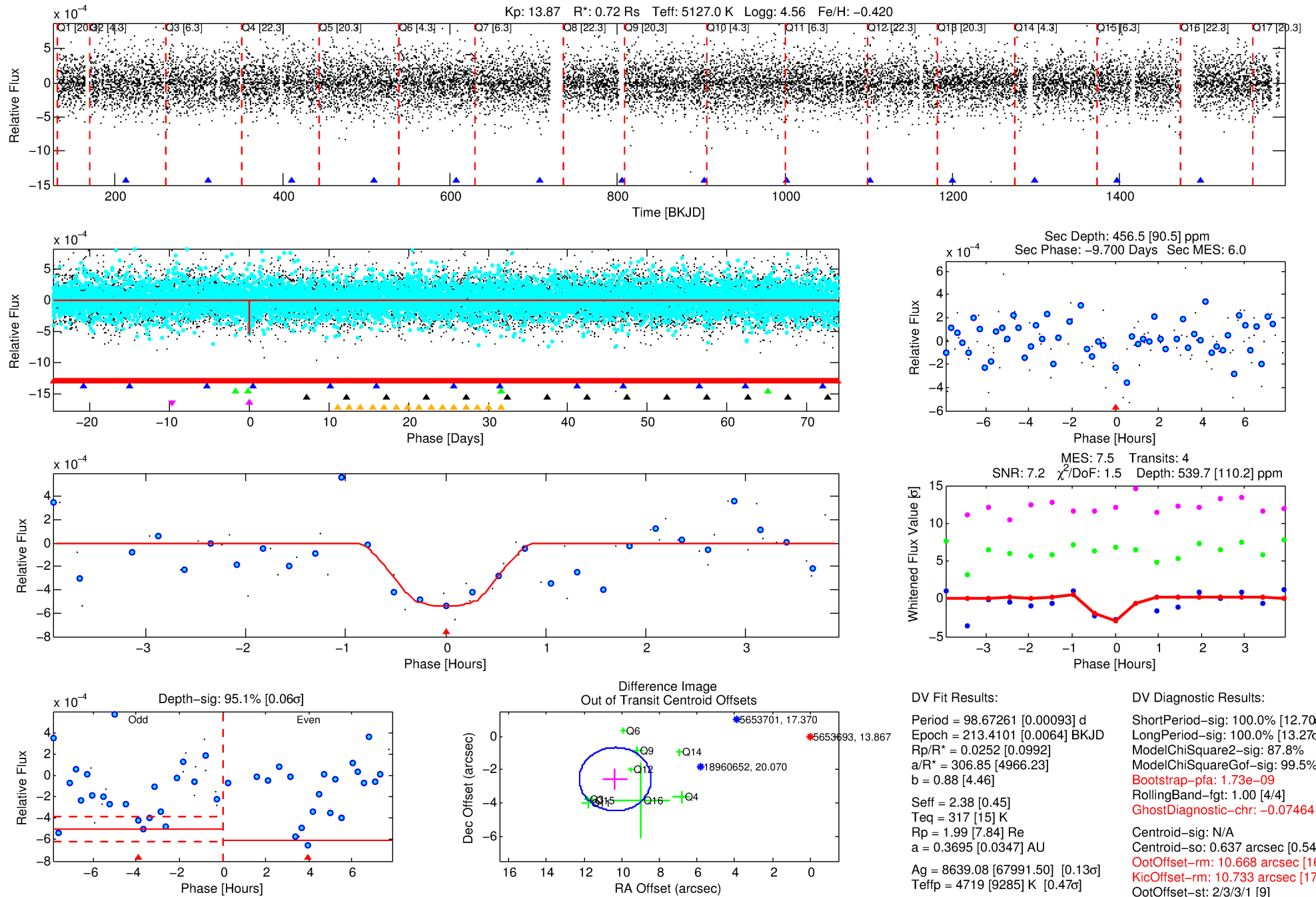
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005653693-05

No Significant Match Found

DV One-Page Summary

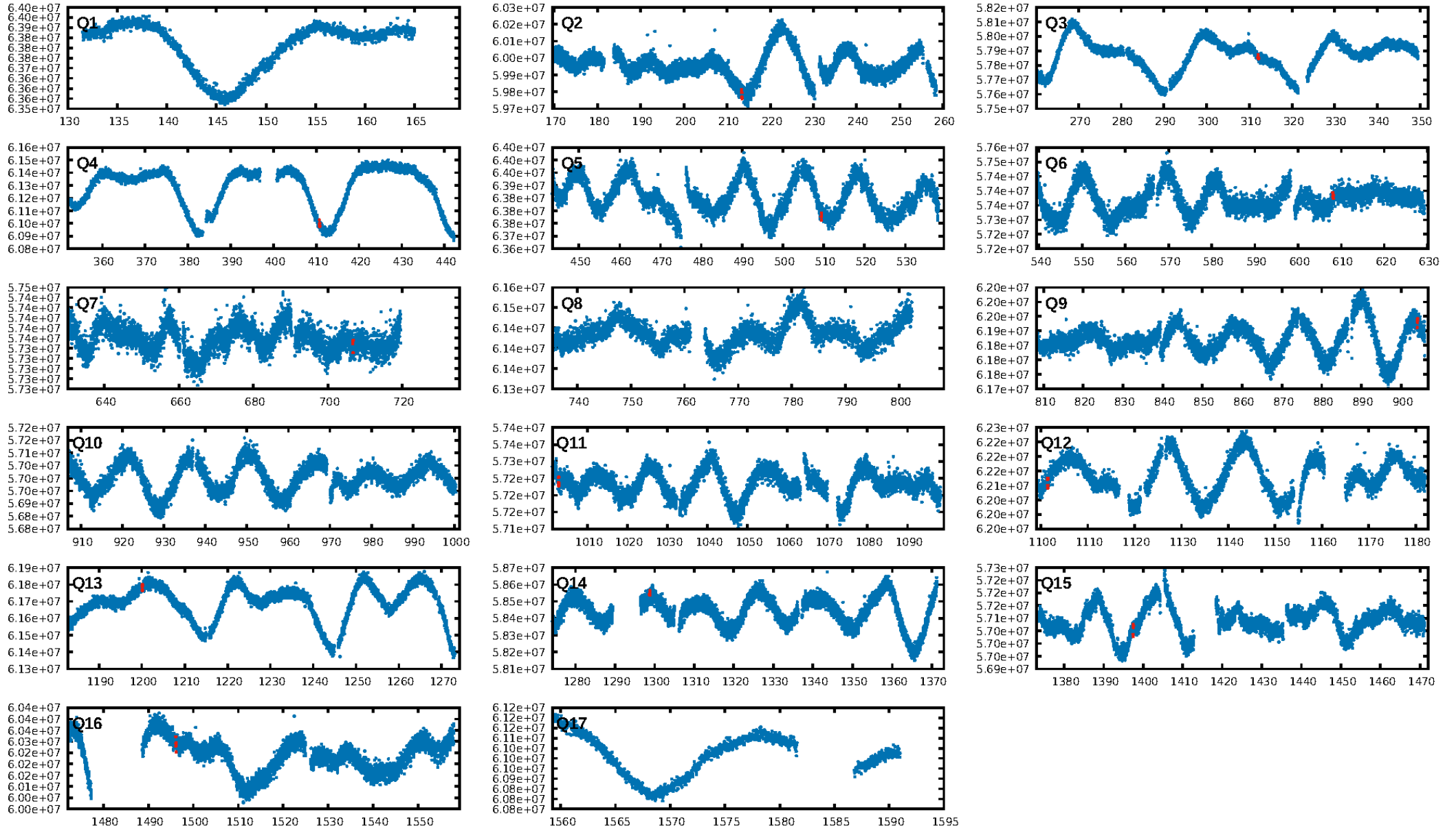
KIC: 5653693 Candidate: 5 of 6 Period: 98.673 d



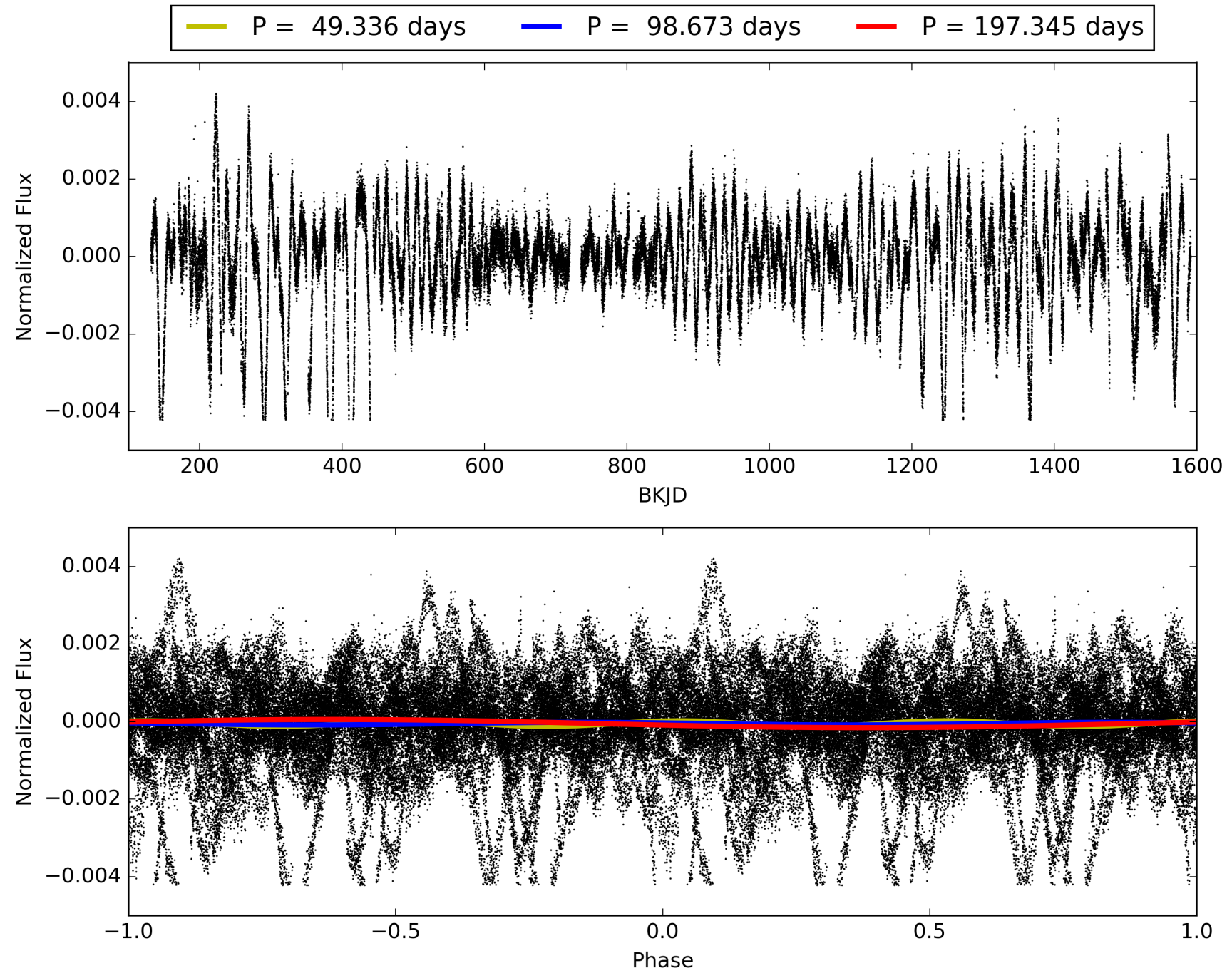
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005653693-05, PDC Light Curves

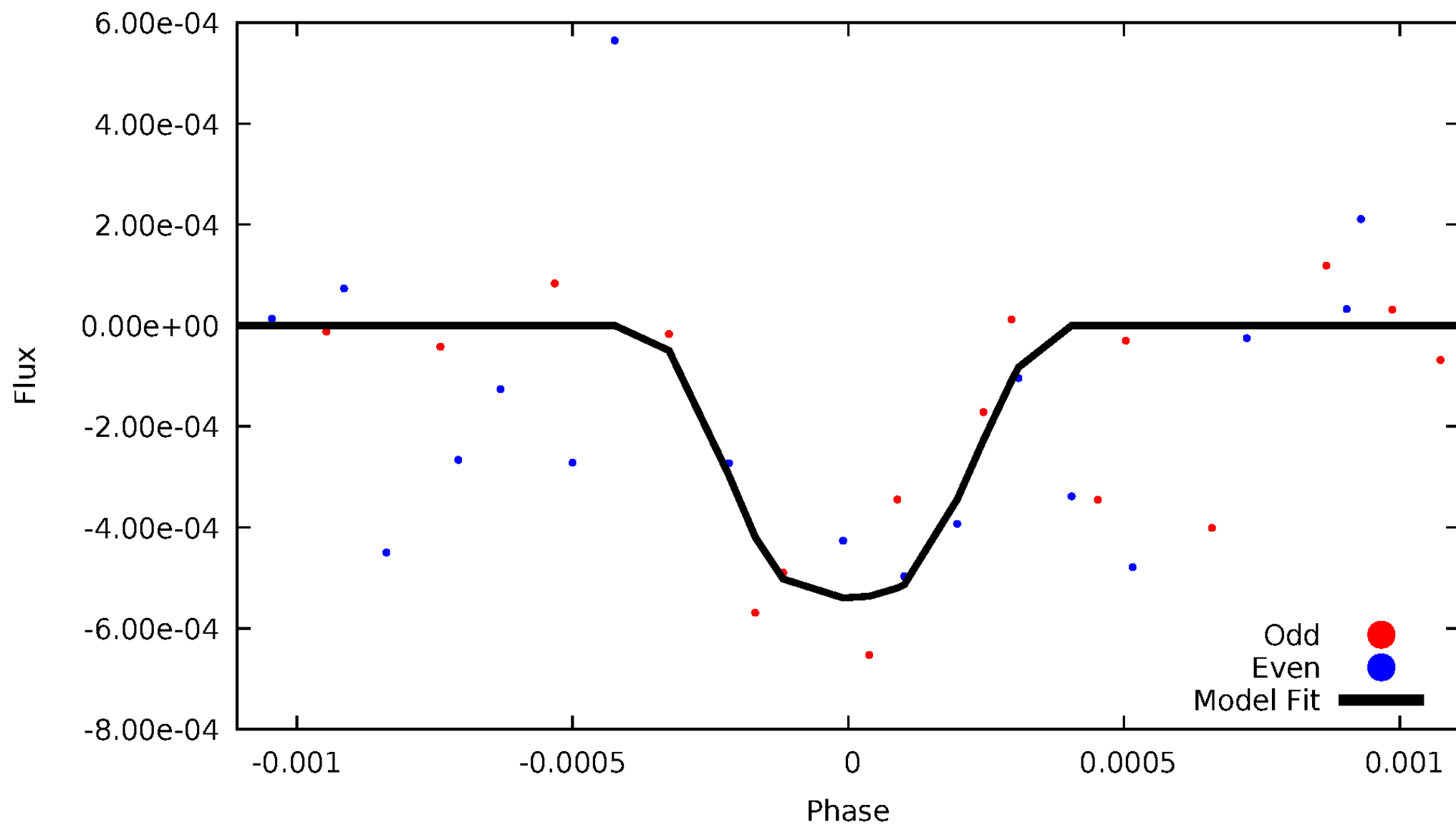


TCE 005653693-05



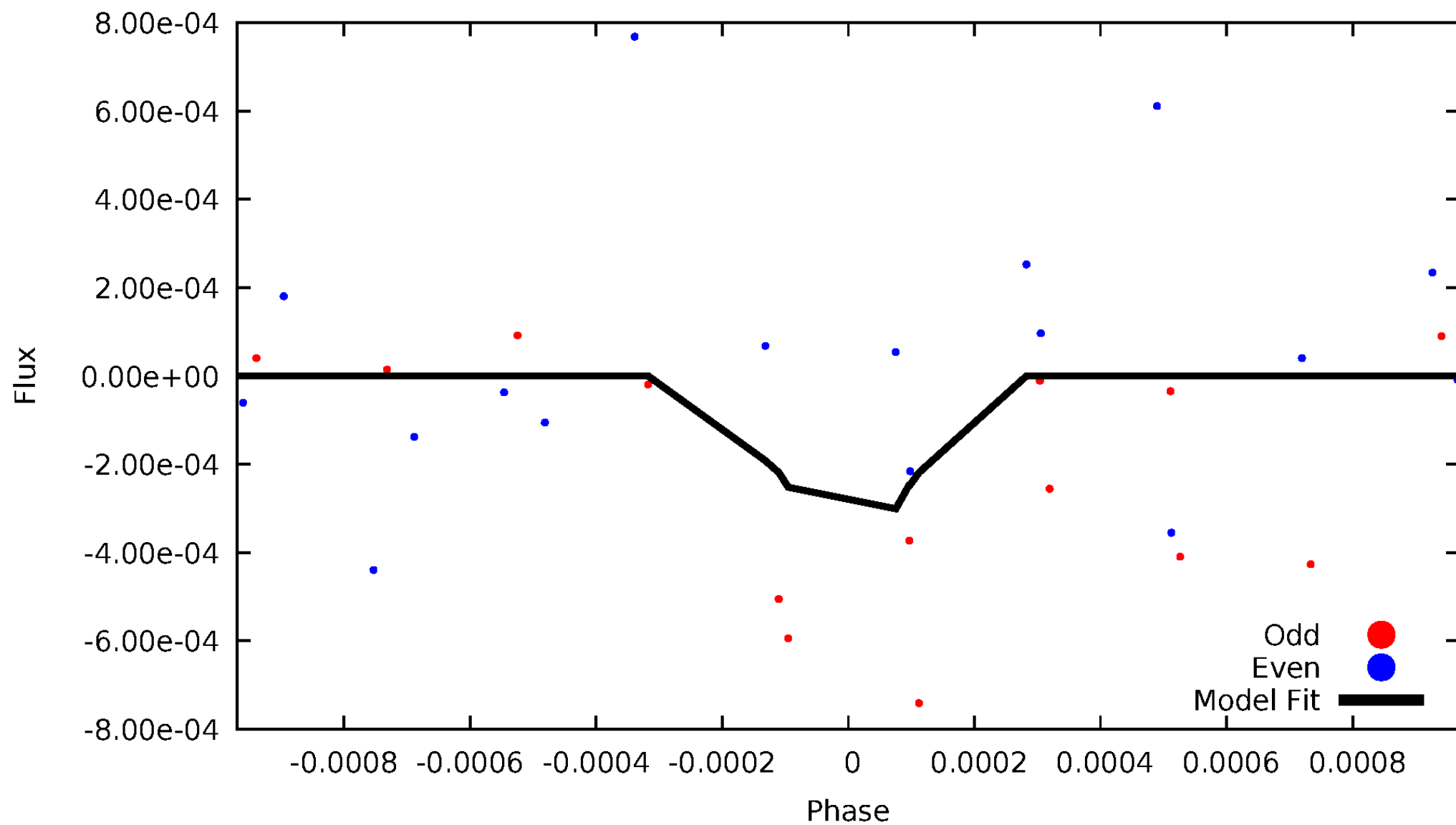
DV Odd/Even

TCE 005653693-05



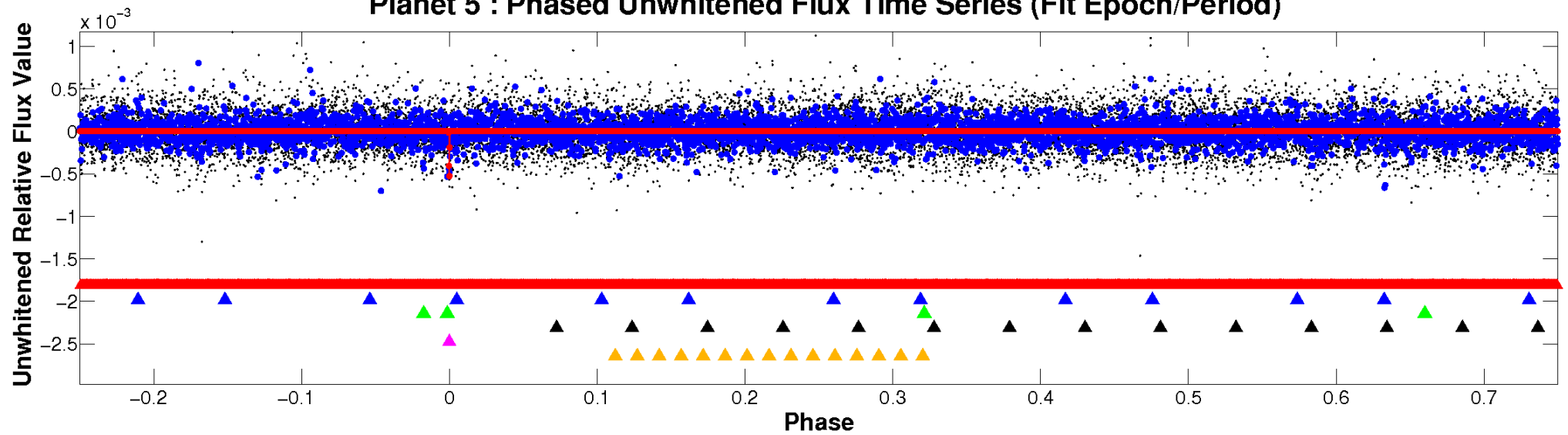
ALT Odd/Even

TCE 005653693-05

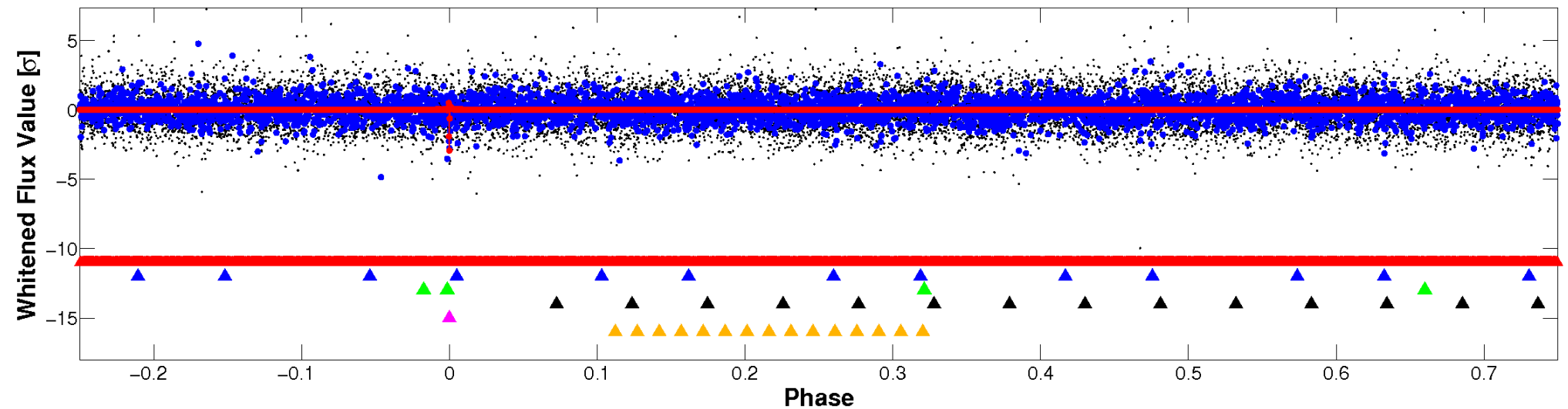


Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

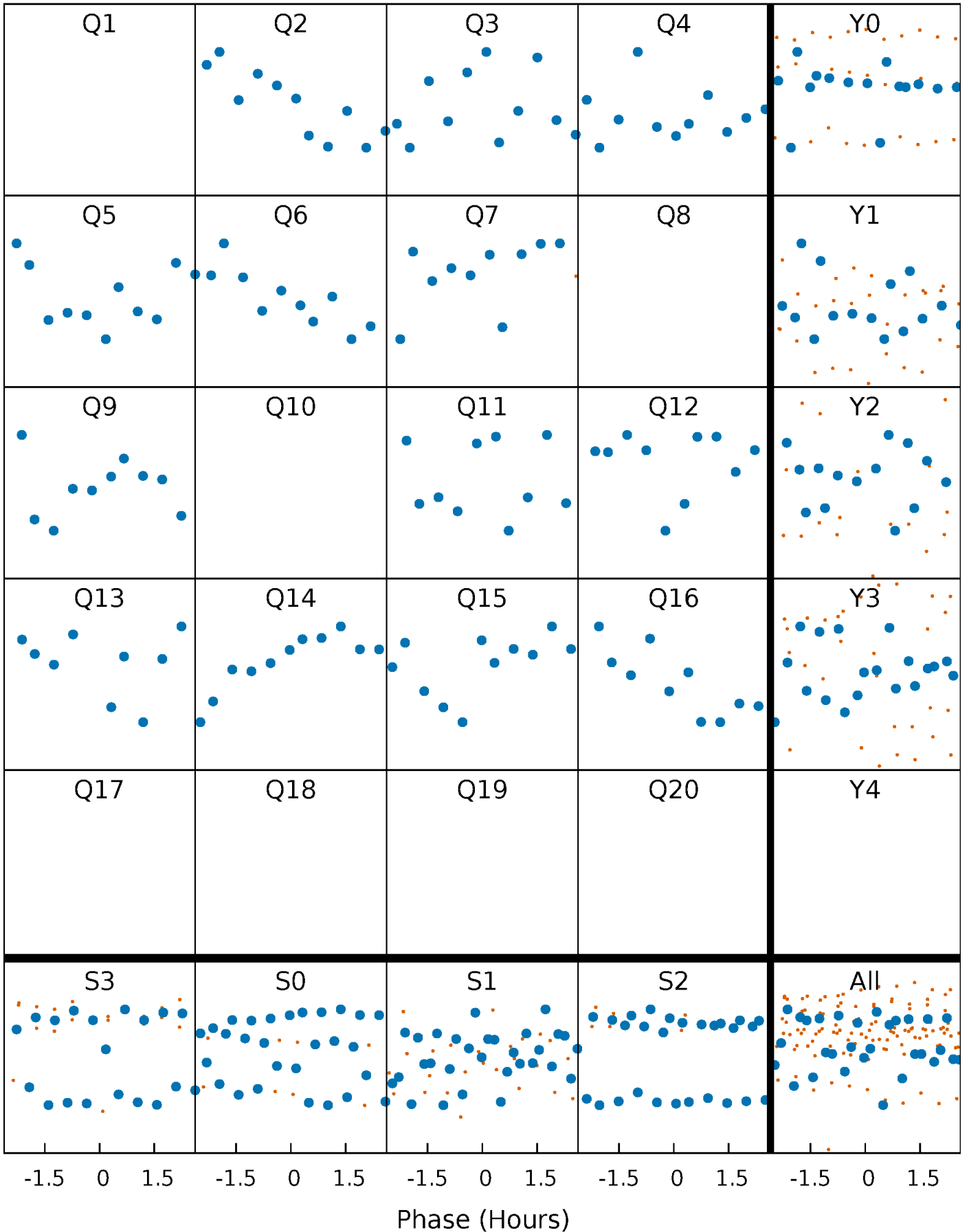


Planet 5 : Phased Whitened Flux Time Series (Fit Epoch/Period)



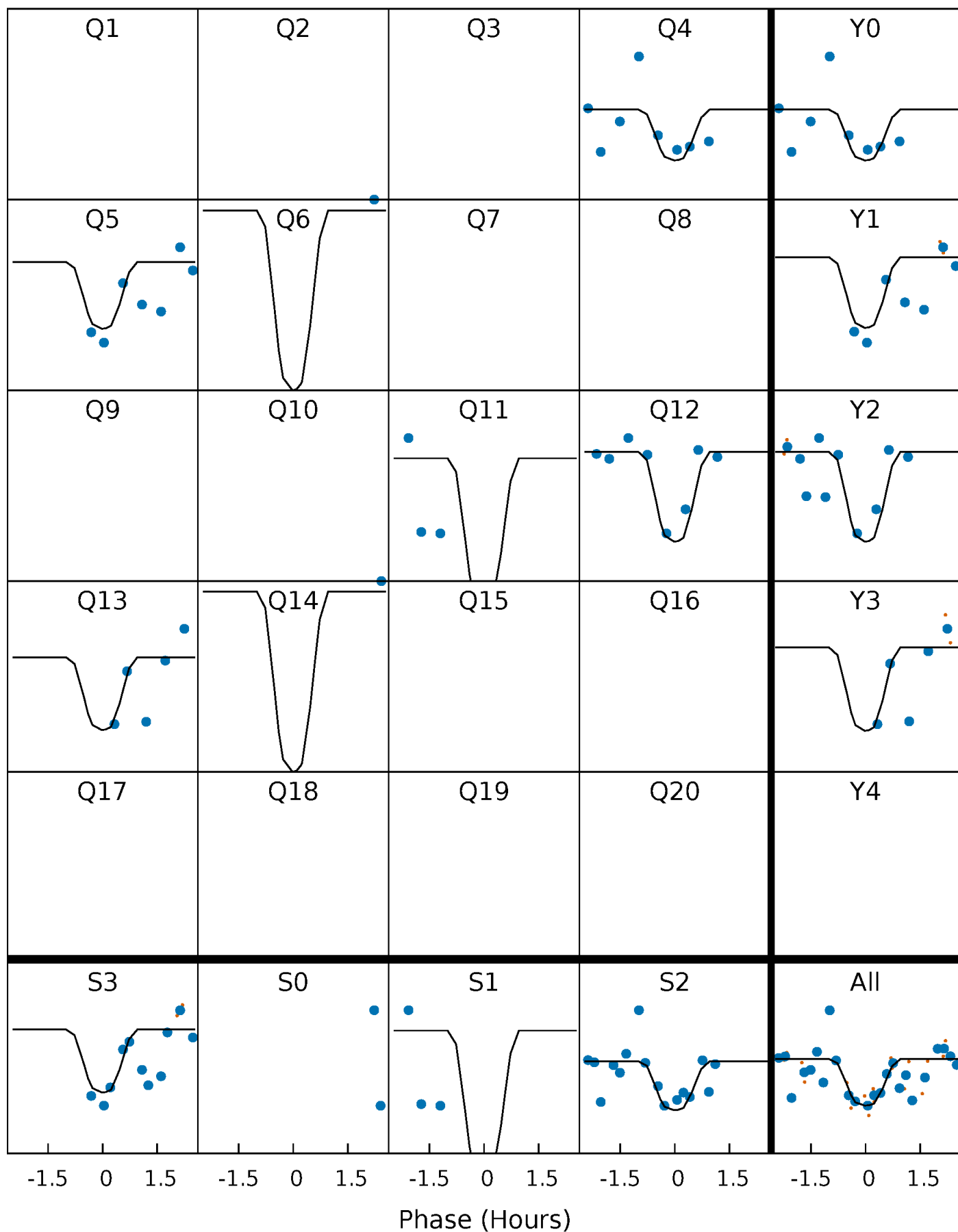
PDC Quarter-Phased Transit Curves

TCE 005653693-05 P= 98.672607 Days $T_0=213.410086$ (BKJD)



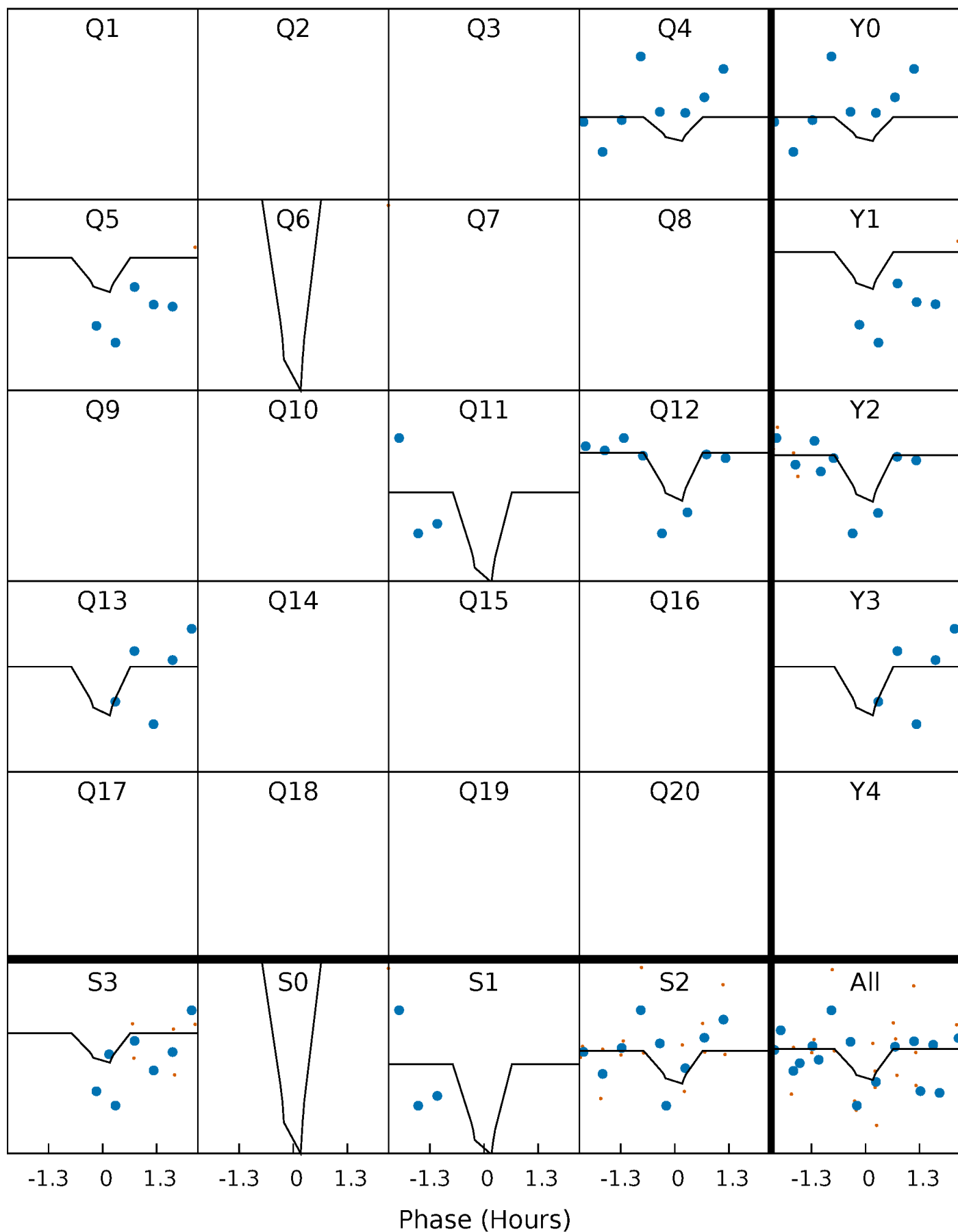
DV Quarter-Phased Transit Curves

TCE 005653693-05 P= 98.672607 Days $T_0=213.410086$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

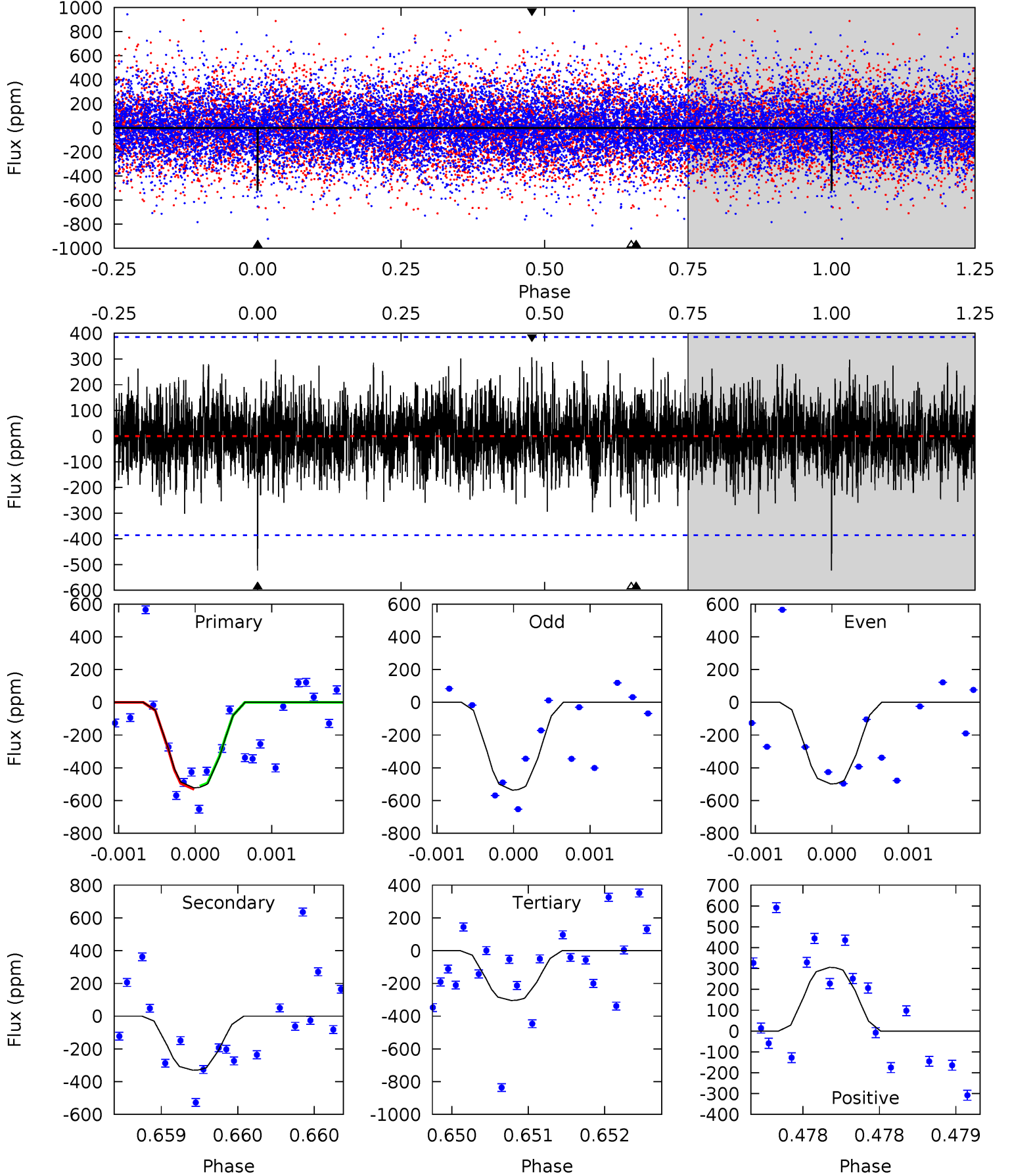
TCE 005653693-05 P= 98.673693 Days $T_0=213.399546$ (BKJD)



DV Model-Shift Uniqueness Test

005653693-05, P = 98.672607 Days, E = 114.737479 Days

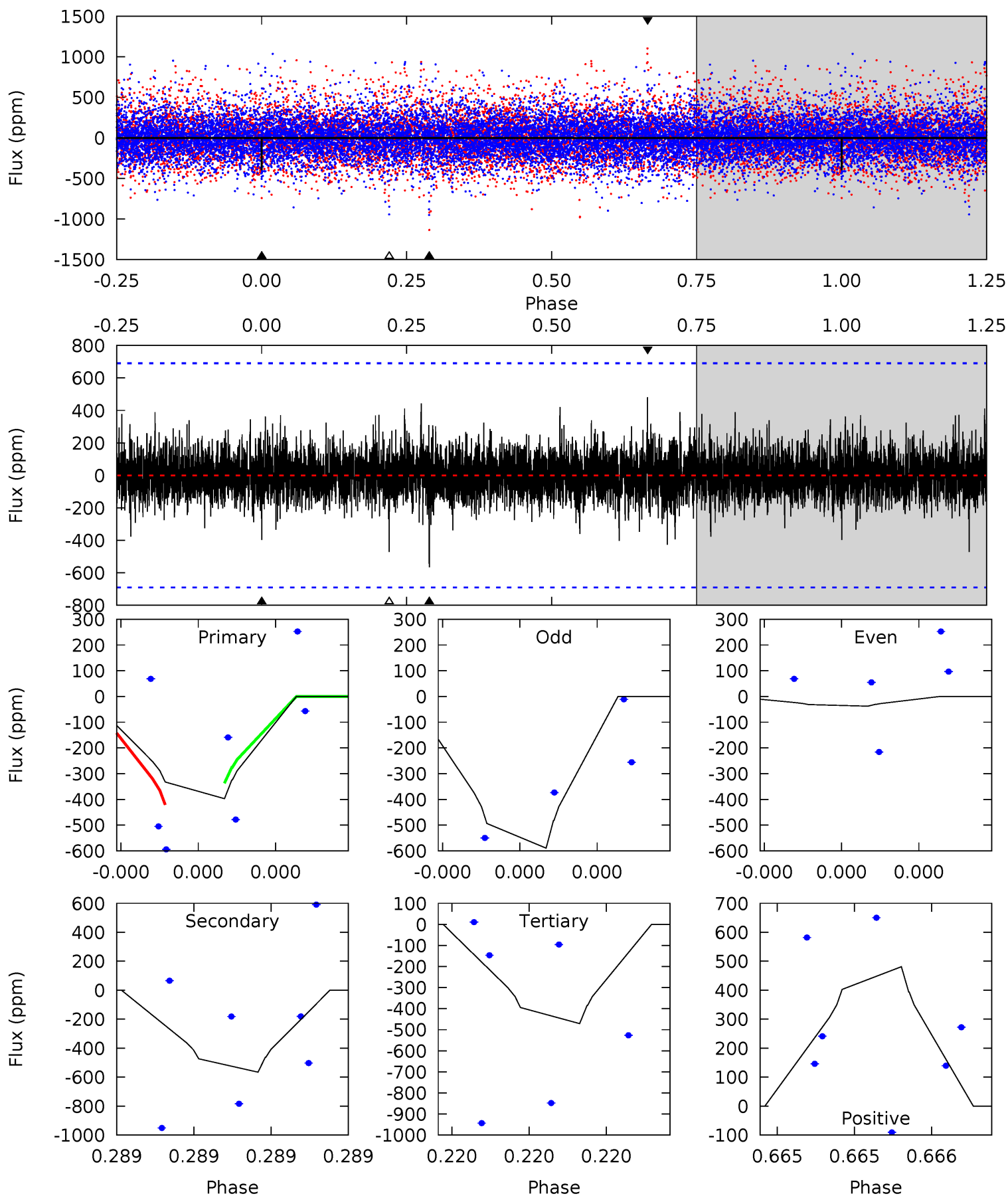
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.50	4.74	4.37	4.39	5.54	3.42	1.27	3.13	3.12	0.37	0.36	0.28	1.04	0.37	0.12



Alt Model-Shift Uniqueness Test

005653693-05, P = 98.673693 Days, E = 114.725853 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.29	4.68	3.90	3.98	5.71	3.69	0.84	-0.61	-0.70	0.78	0.70	2.27	0.79	0.46	0.30



Stellar Parameters For KIC 005653693

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5127^{+153}_{-138}	$4.558^{+0.084}_{-0.052}$	$-0.420^{+0.350}_{-0.300}$	$0.724^{+0.074}_{-0.074}$	$0.690^{+0.095}_{-0.044}$	$2.565^{+0.853}_{-0.446}$
	+3%/-3%	+2%/-1%	+83%/-71%	+10%/-10%	+14%/-6%	+33%/-17%
Source	PHO1	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 005653693-05 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-330 ± 70	$6.21^{+5.86}_{-4.12}$	440^{+18}_{-17}	3063^{+1338}_{-508}	642^{+5076}_{-481}
Alt.	-566 ± 121	$5.94^{+6.09}_{-3.97}$	440^{+17}_{-17}	3363^{+1686}_{-616}	1158^{+9970}_{-874}

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 $A_{obs} \gg 1.0$

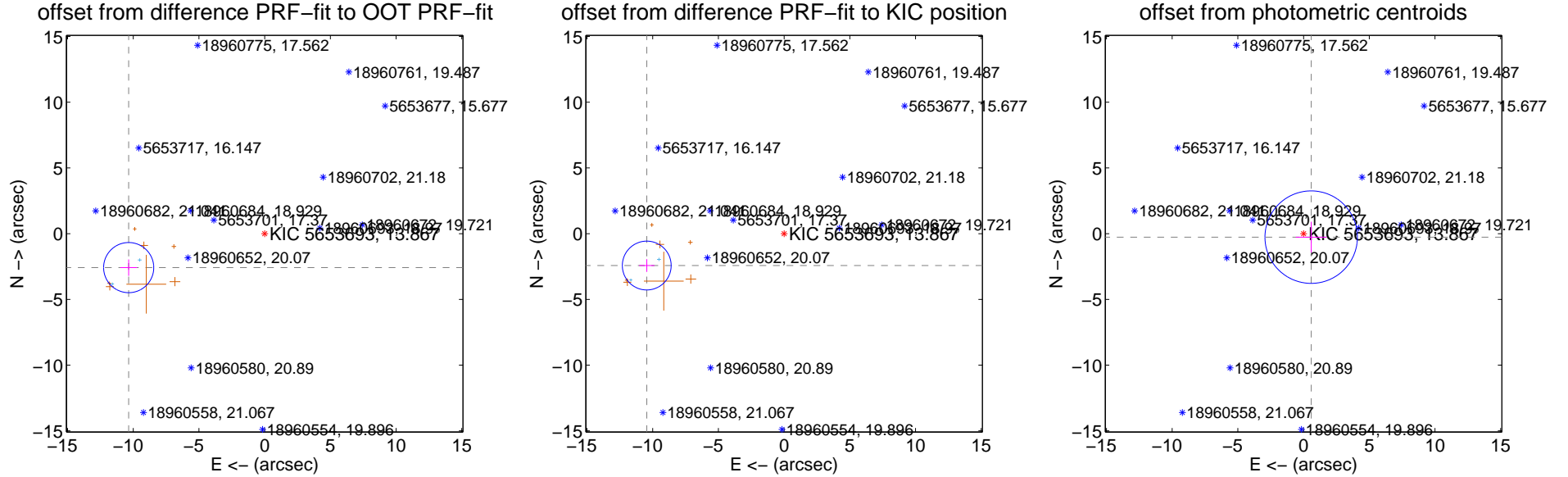
DV Centroid Data

Supplemental centroid analysis for 005653693-05. Kepler magnitude: 13.87. Transit SNR 7.23

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.28 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.668 ± 0.636	16.77	10.350 ± 0.637	-2.582 ± 0.625
PRF-fit source offset from KIC position	10.733 ± 0.619	17.33	10.455 ± 0.581	-2.425 ± 0.488
photometric centroid source offset	0.64 ± 1.17	0.54	-0.58 ± 1.17	-0.26 ± 1.17



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.

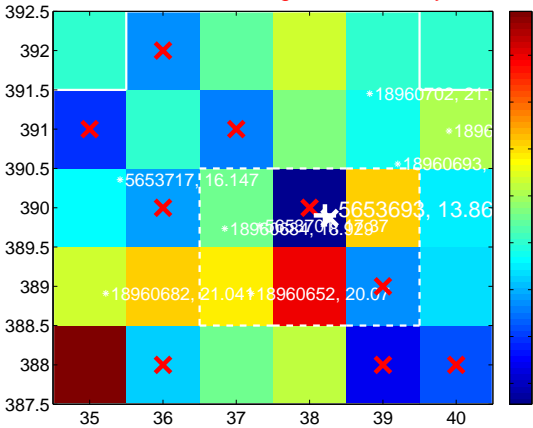
Q1 no difference image



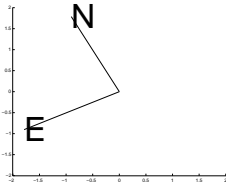
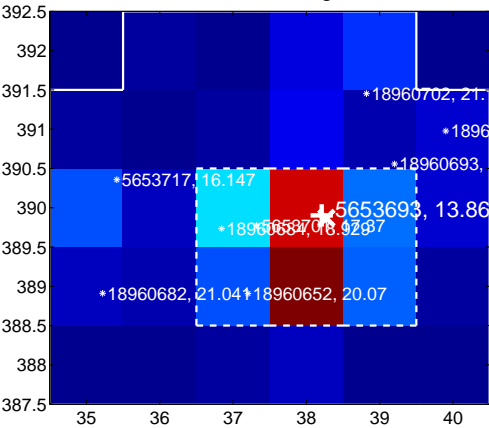
Q1 no OOT image



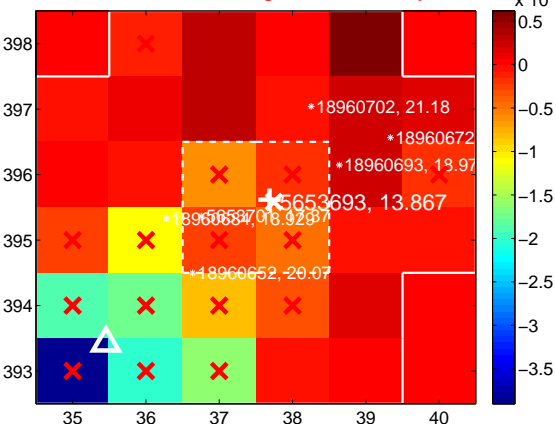
Q2 difference image. Poor Quality



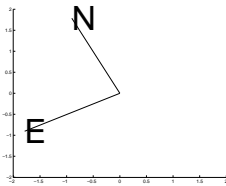
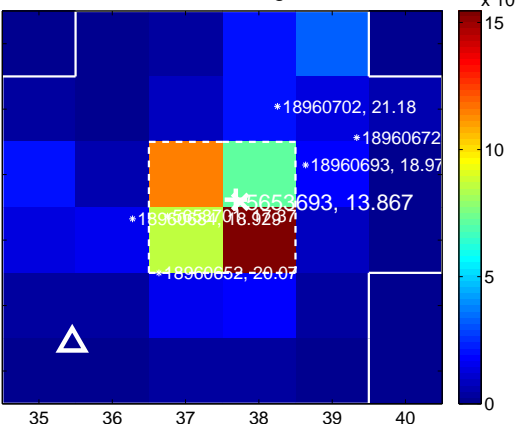
Q2 OOT image



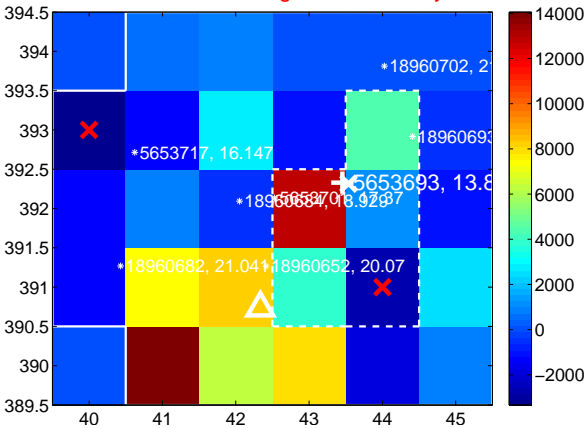
Q3 difference image. Poor Quality



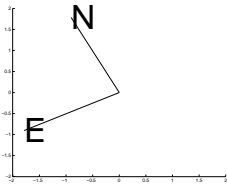
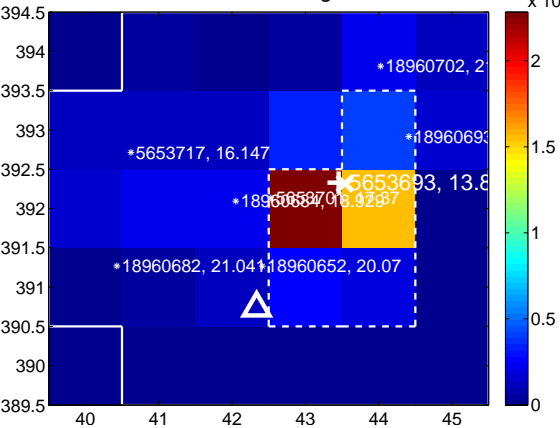
Q3 OOT image



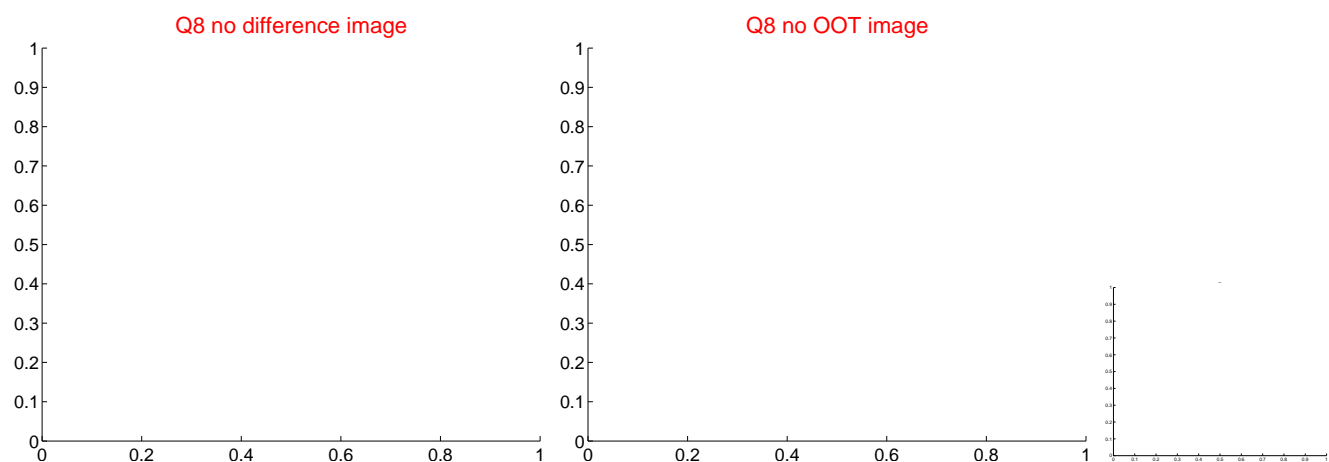
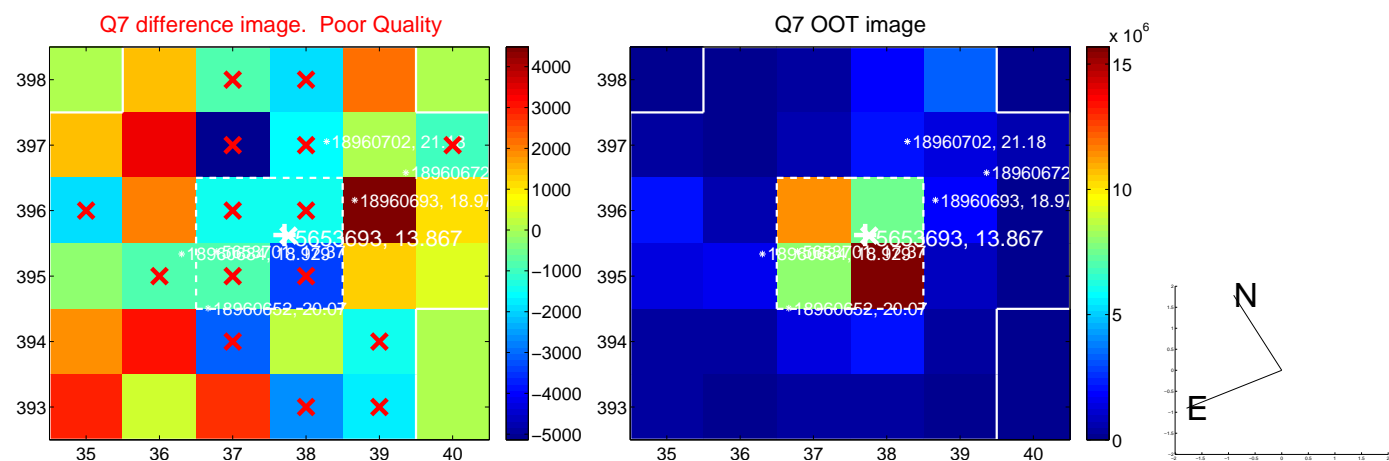
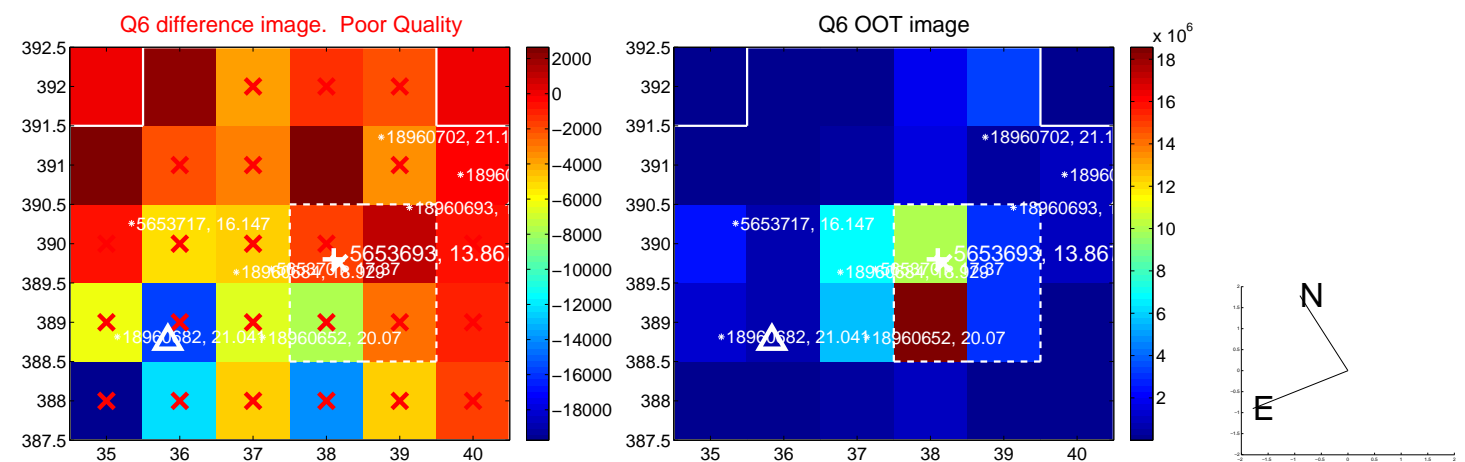
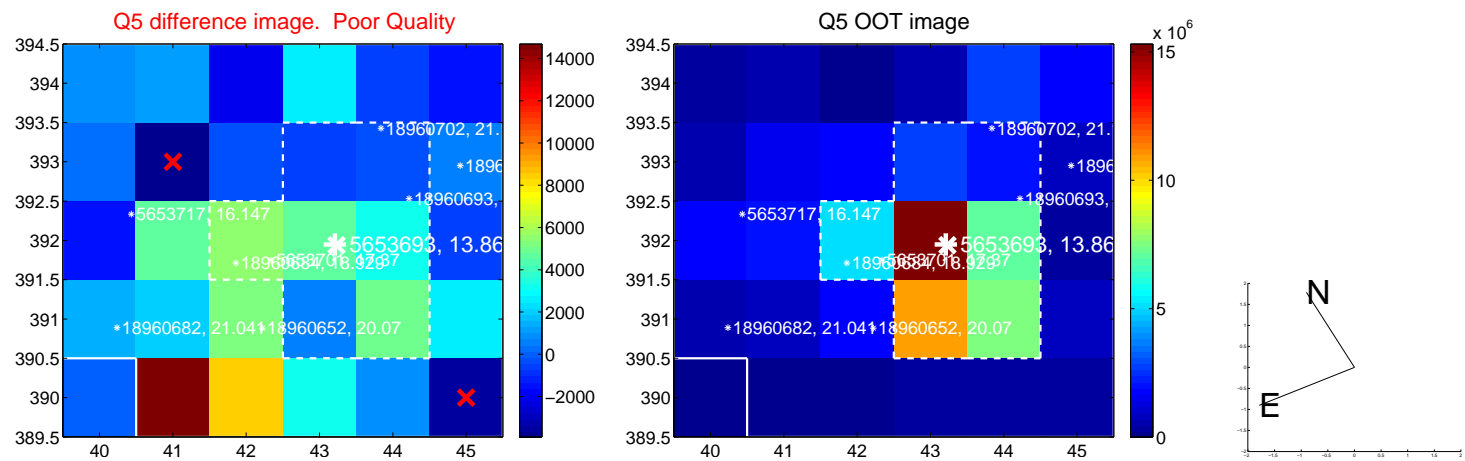
Q4 difference image. Poor Quality



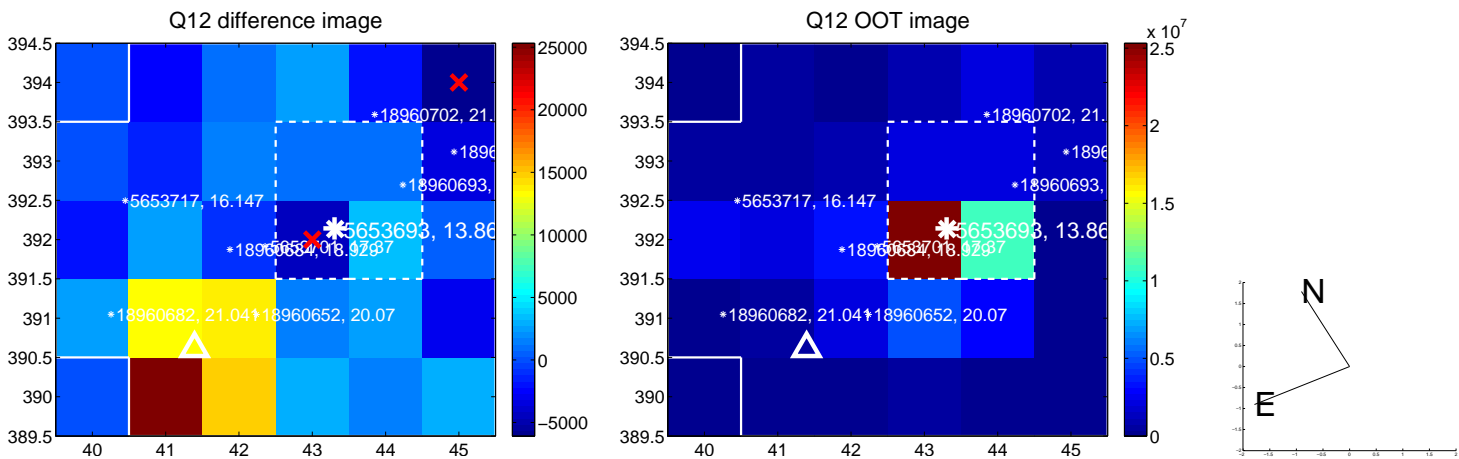
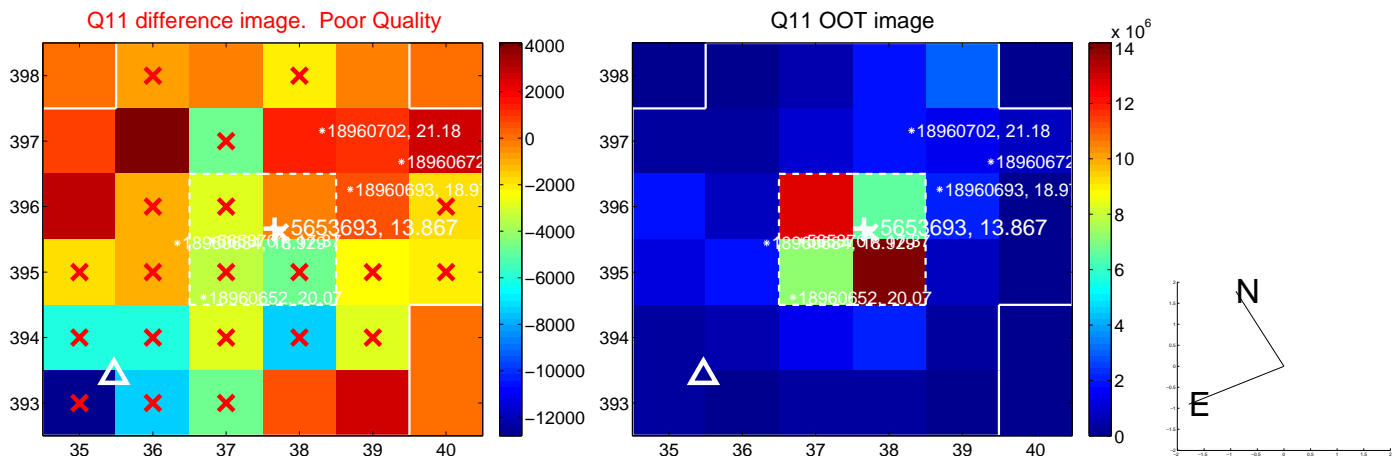
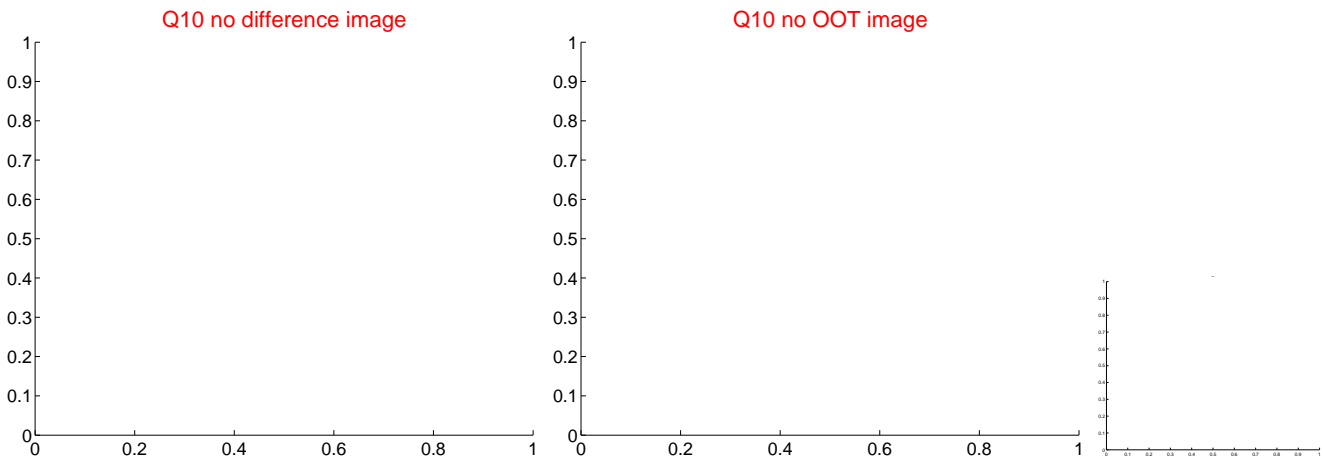
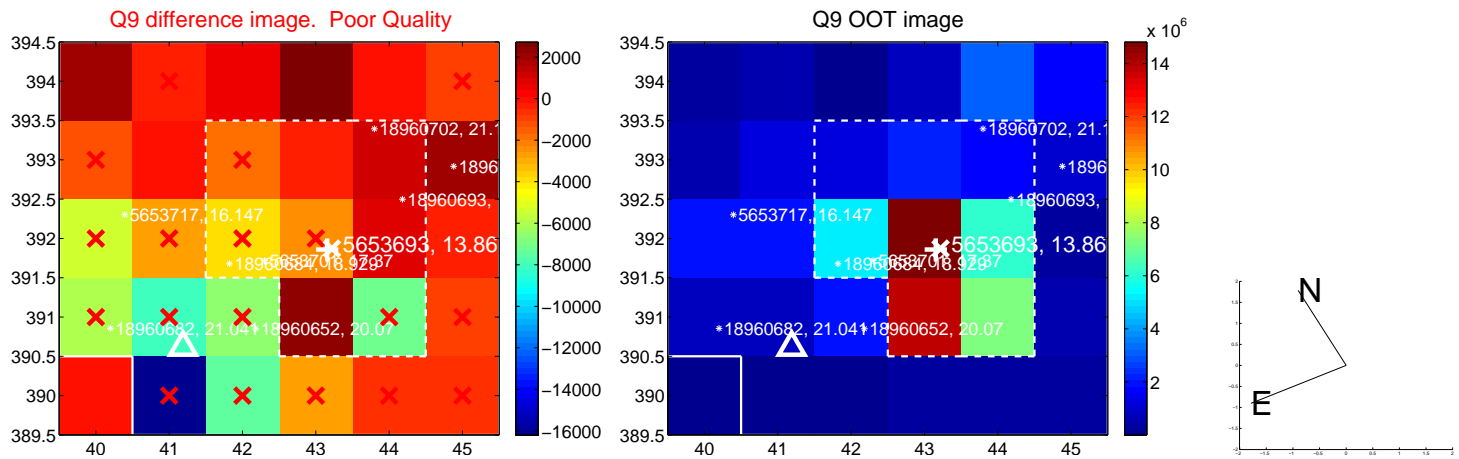
Q4 OOT image



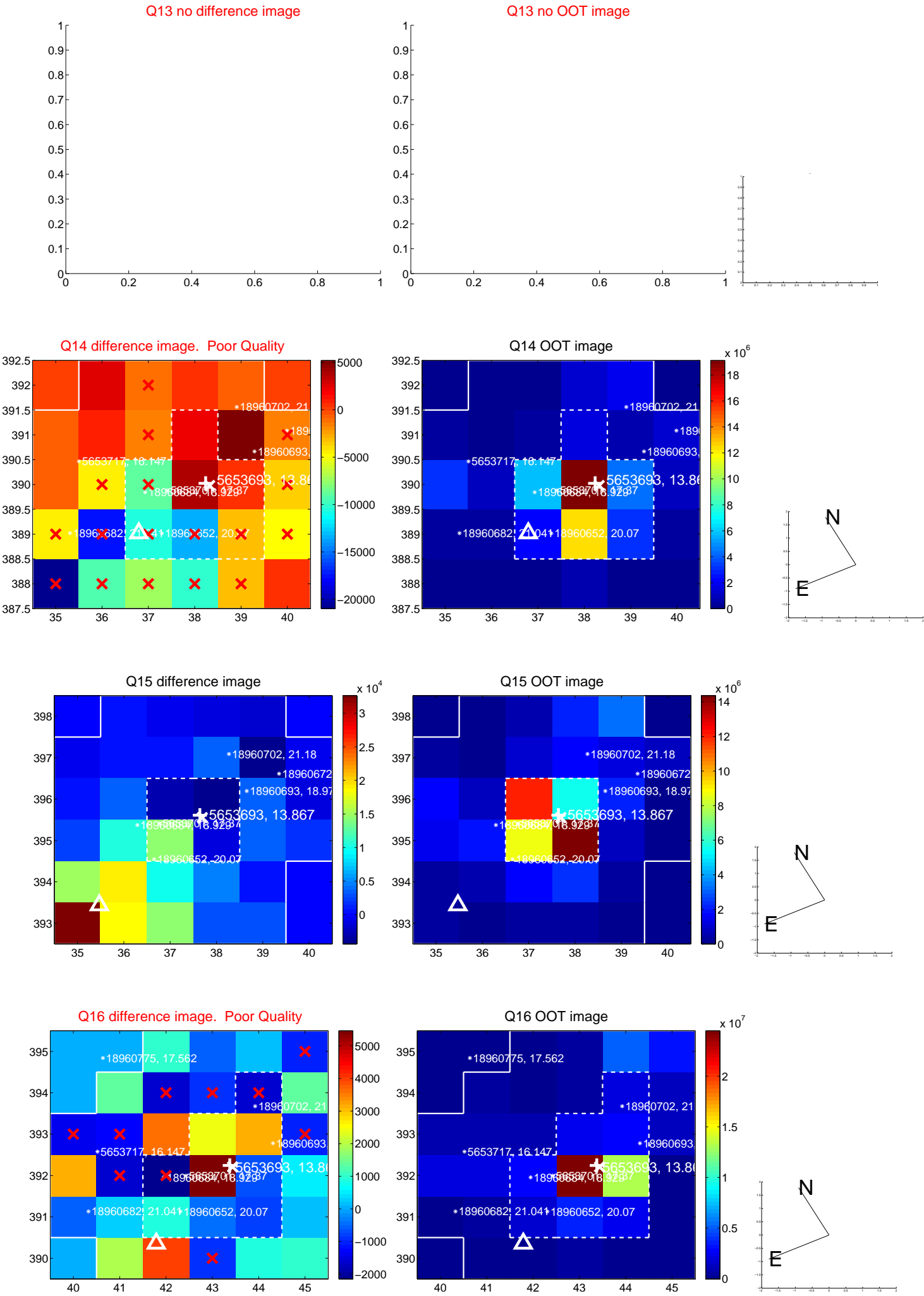
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



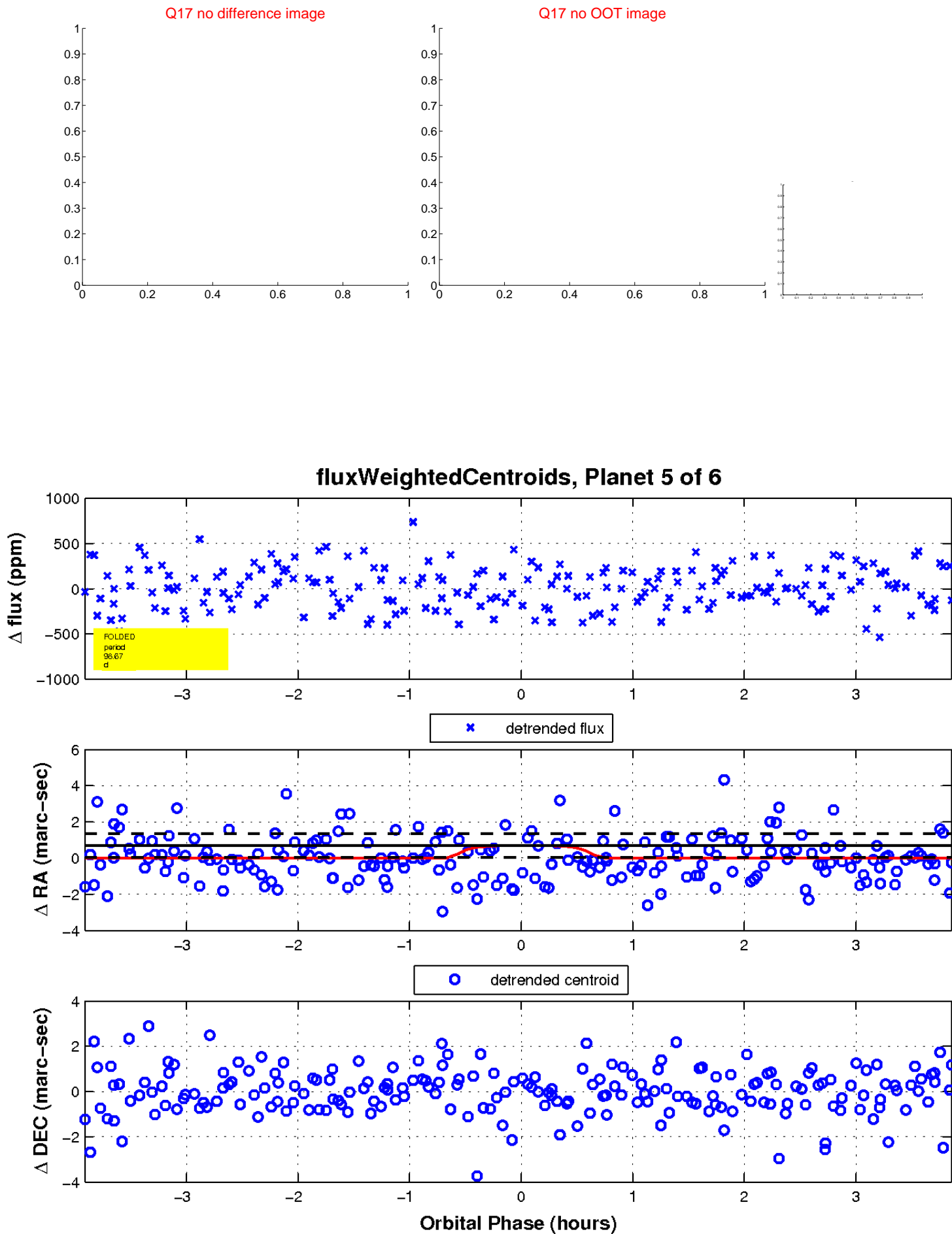
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

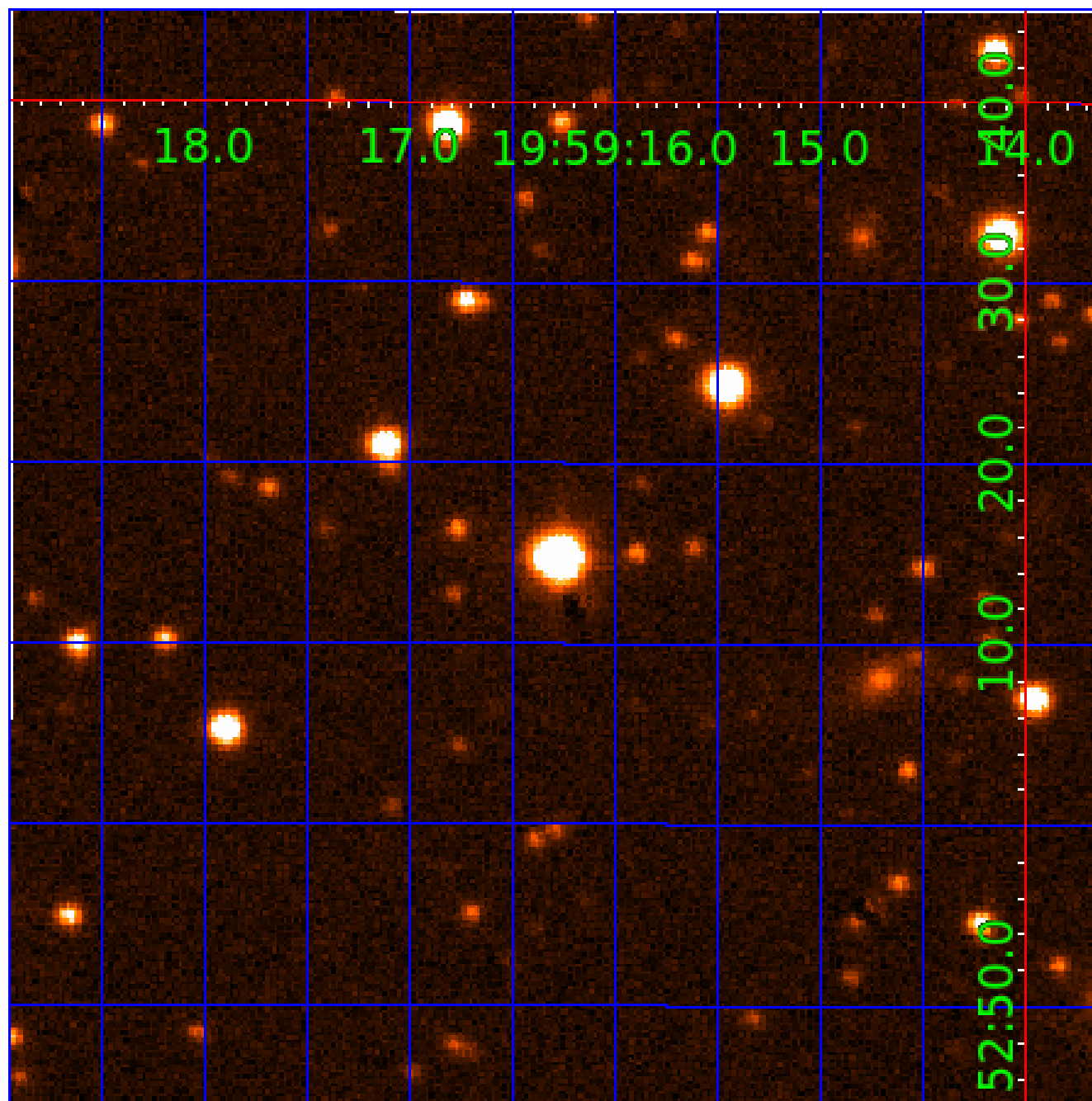


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005653693

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})
005653693-01	OBS	No	0.676527	131.643937	36.9	3.889	12.9	12.9	0.72	5127	0.44	1824.43
005653693-02	OBS	No	114.150526	198.430118	363.2	6.550	11.6	7.8	0.72	5127	1.54	1.96
005653693-03	OBS	No	361.274292	311.946568	460.0	5.547	8.5	7.8	0.72	5127	1.80	0.42
005653693-04	OBS	No	103.711913	220.569321	269.5	9.016	7.6	7.1	0.72	5127	1.32	2.22
005653693-05	OBS	No	98.672607	213.410086	539.7	1.312	7.5	7.2	0.72	5127	1.99	2.38
005653693-06	OBS	No	97.206434	146.343636	467.1	2.440	7.1	7.4	0.72	5127	1.83	2.42

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005653693-01	OBS	FP	0.00	1	0	1	0	LPP_DV—CENT_RESOLVED_OFFSET
005653693-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—LPP_DV—LPP_ALT—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005653693-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL_SKYE—ALL_TRANS_CHASES—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—INCONSISTENT_TRANS—CENT_FEW_DIFFS
005653693-04	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
005653693-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_CHASES_TRACKER—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT—CENT_RESOLVED_OFFSET—HALO_GHOST
005653693-06	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—CENT_UNRESOLVED_OFFSET

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

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

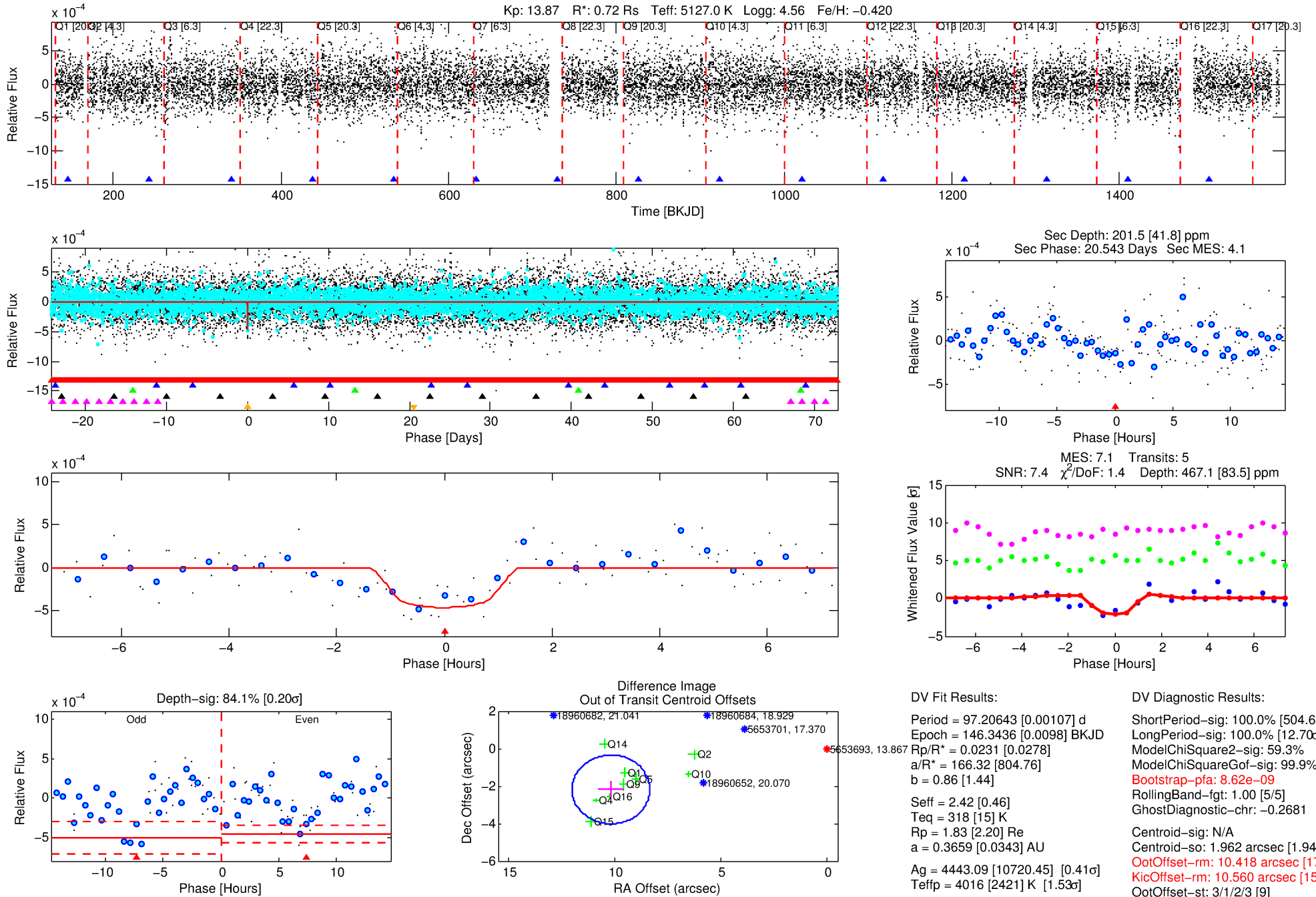
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005653693-06

No Significant Match Found

DV One-Page Summary

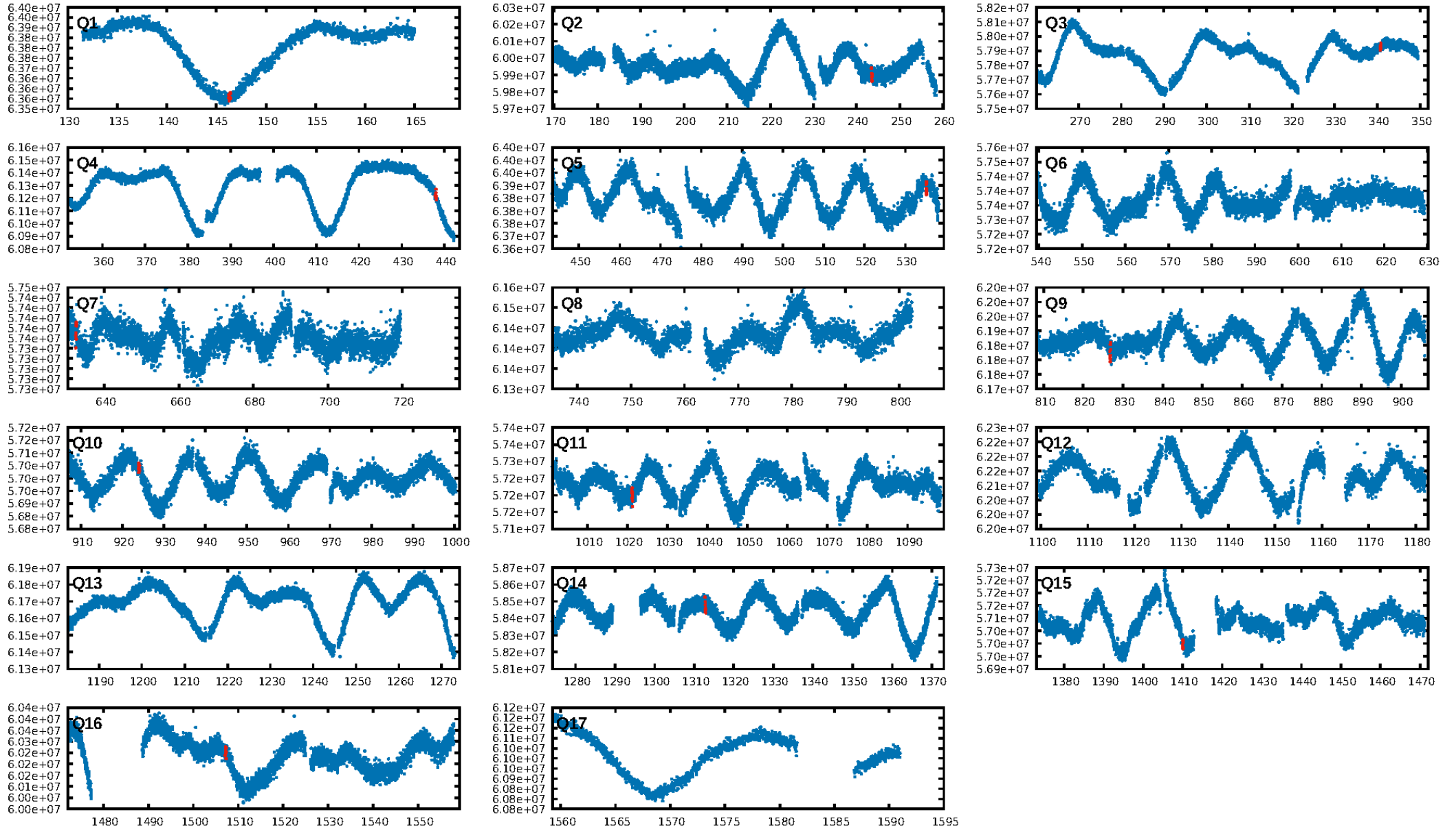
KIC: 5653693 Candidate: 6 of 6 Period: 97.206 d



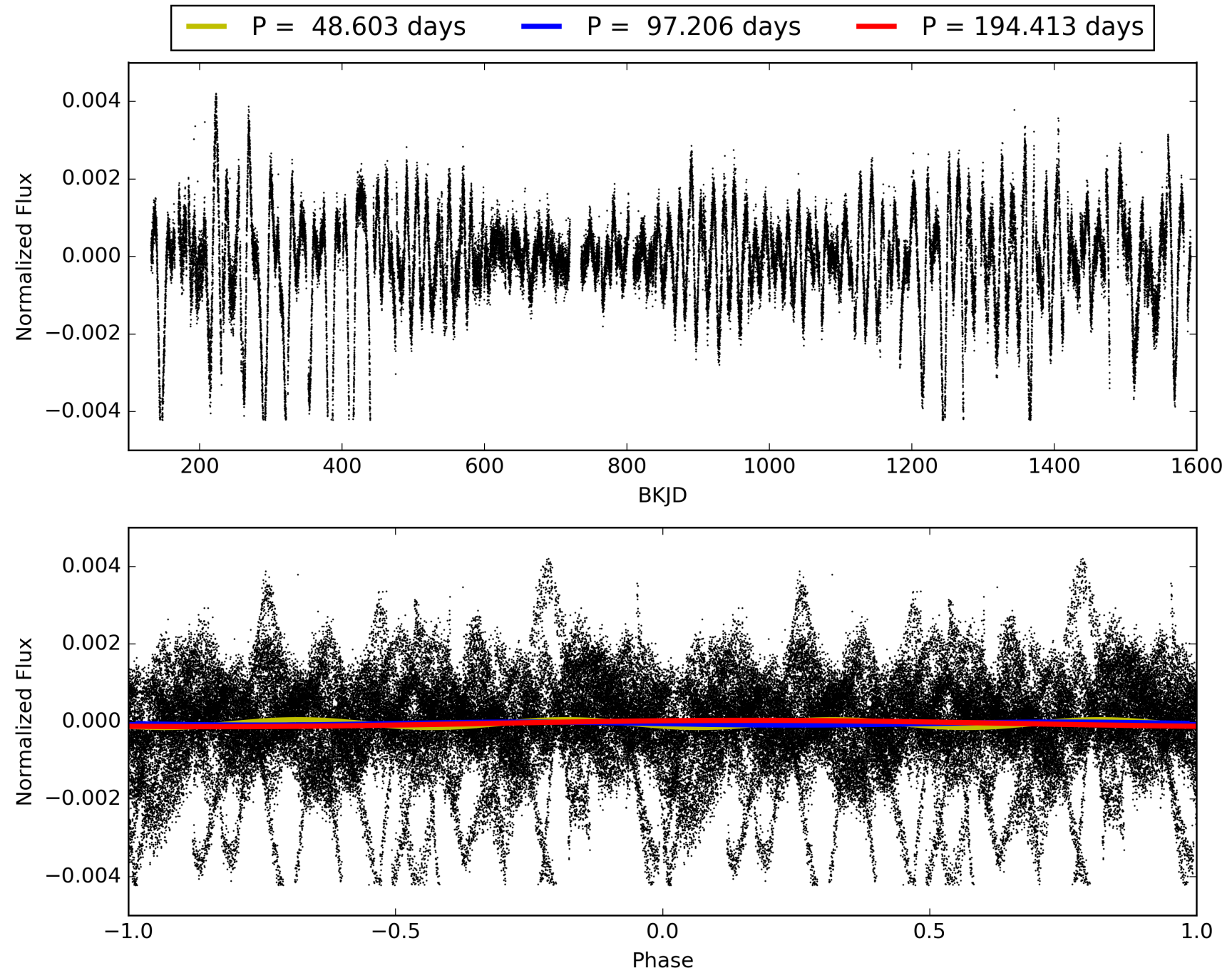
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 04:25:16 Z

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

TCE 005653693-06, PDC Light Curves

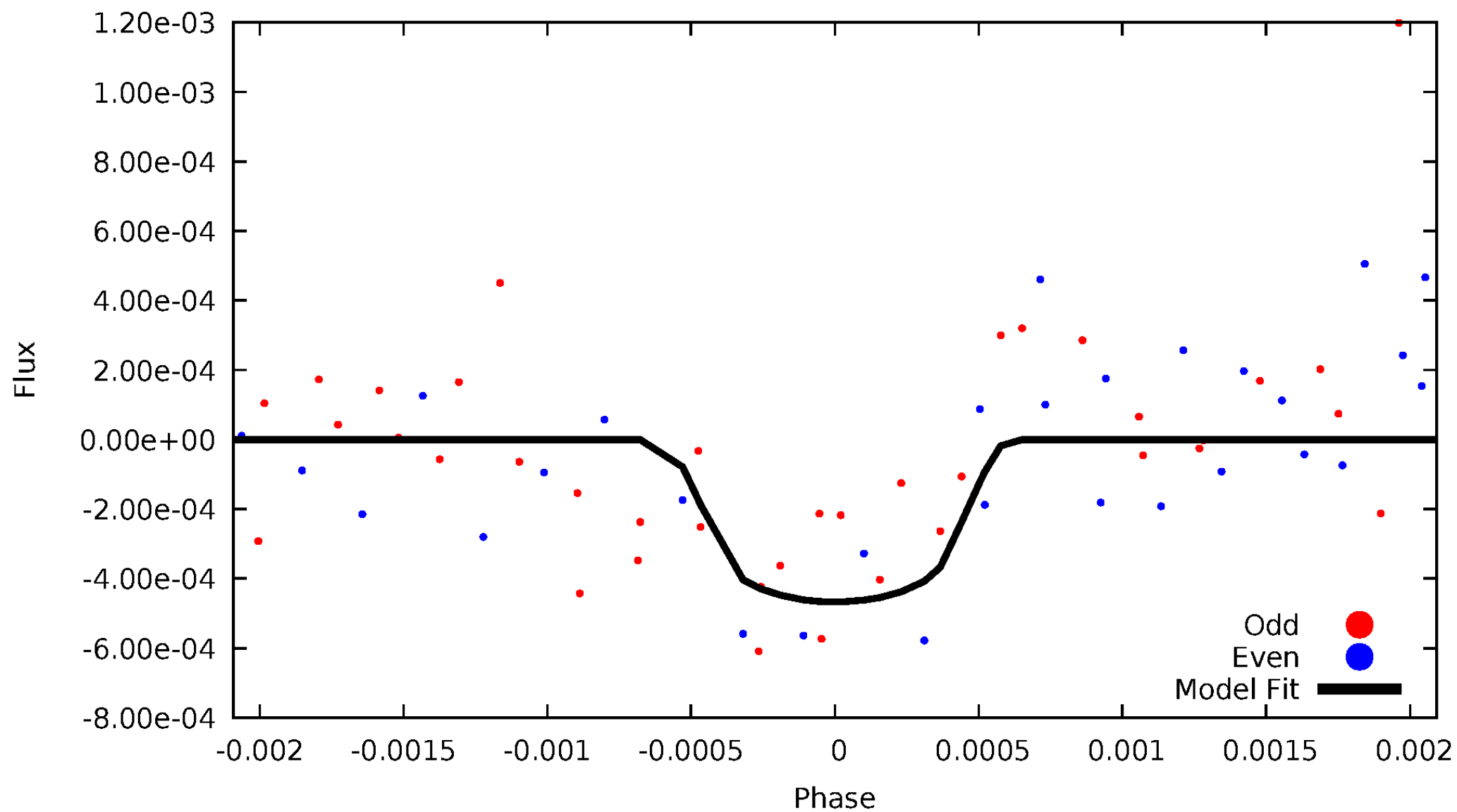


TCE 005653693-06



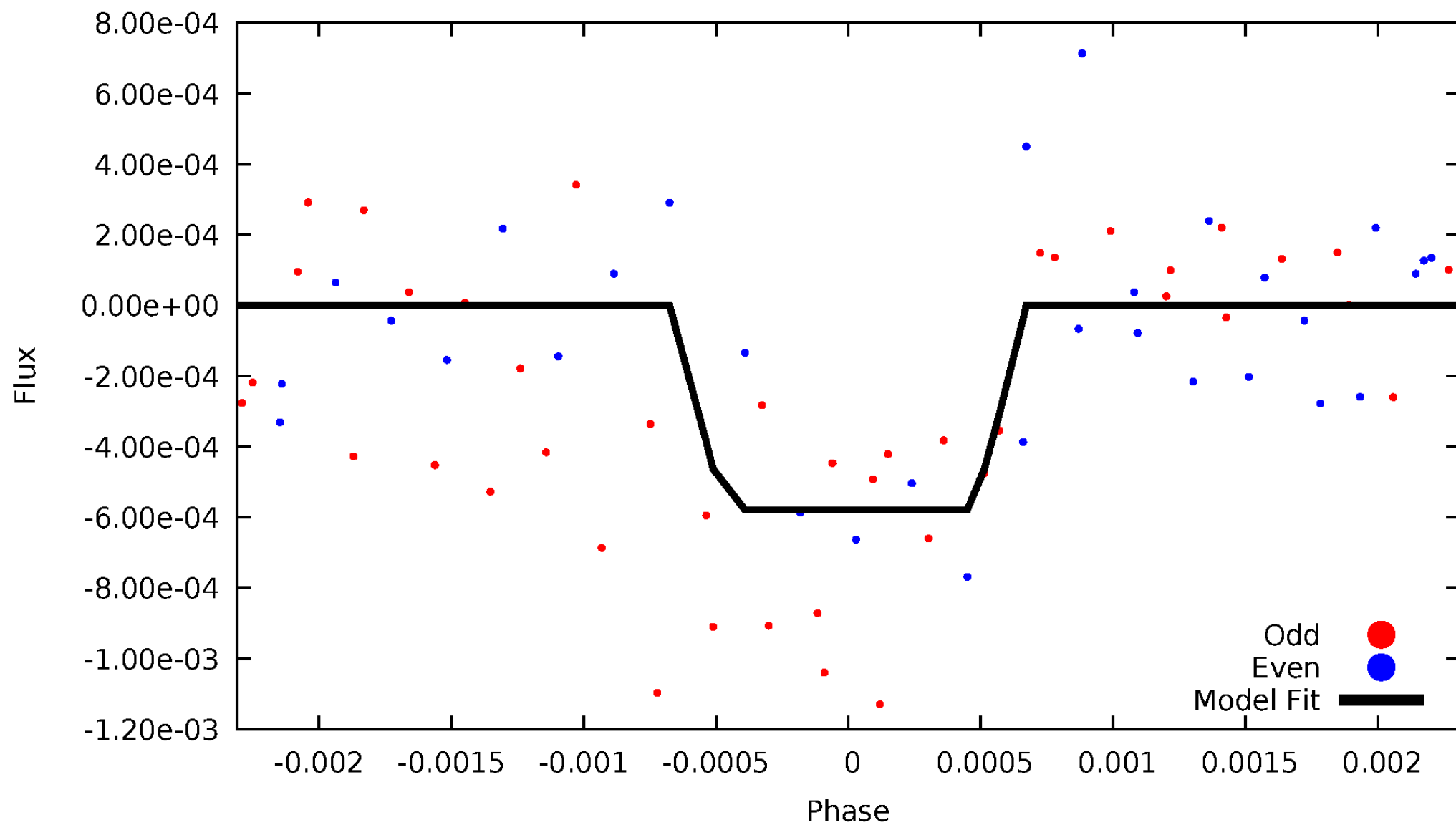
DV Odd/Even

TCE 005653693-06



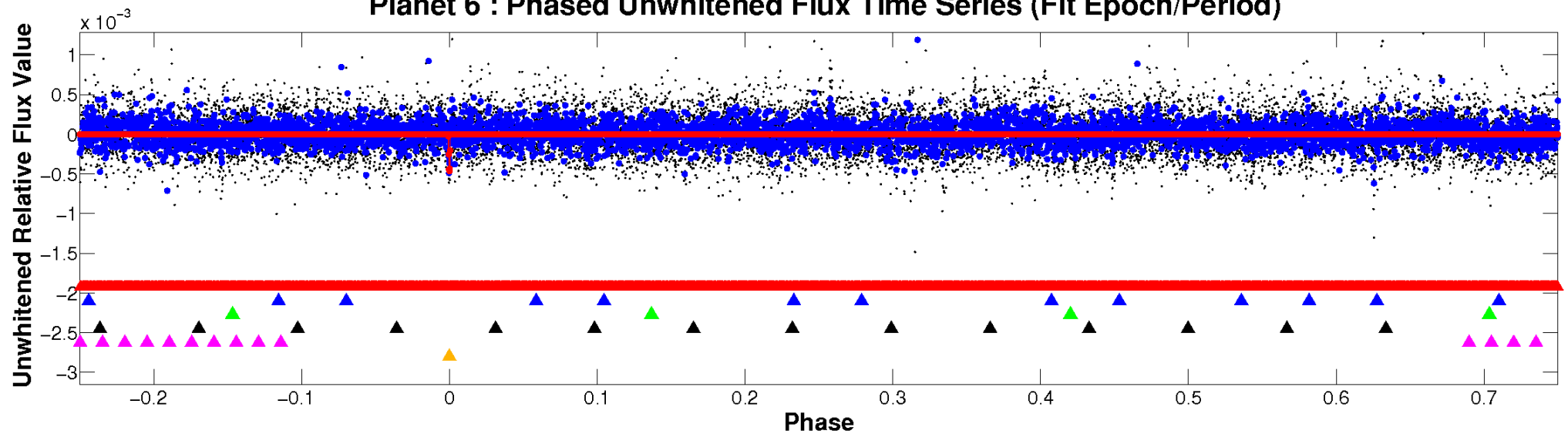
ALT Odd/Even

TCE 005653693-06

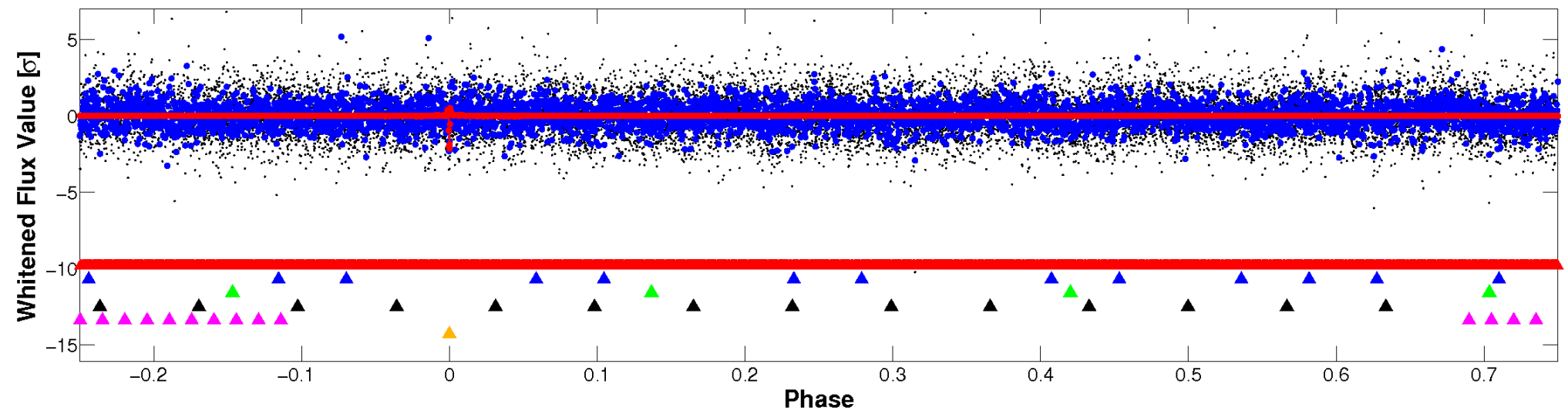


Non-Whitened Vs. Whitened Light Curve

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

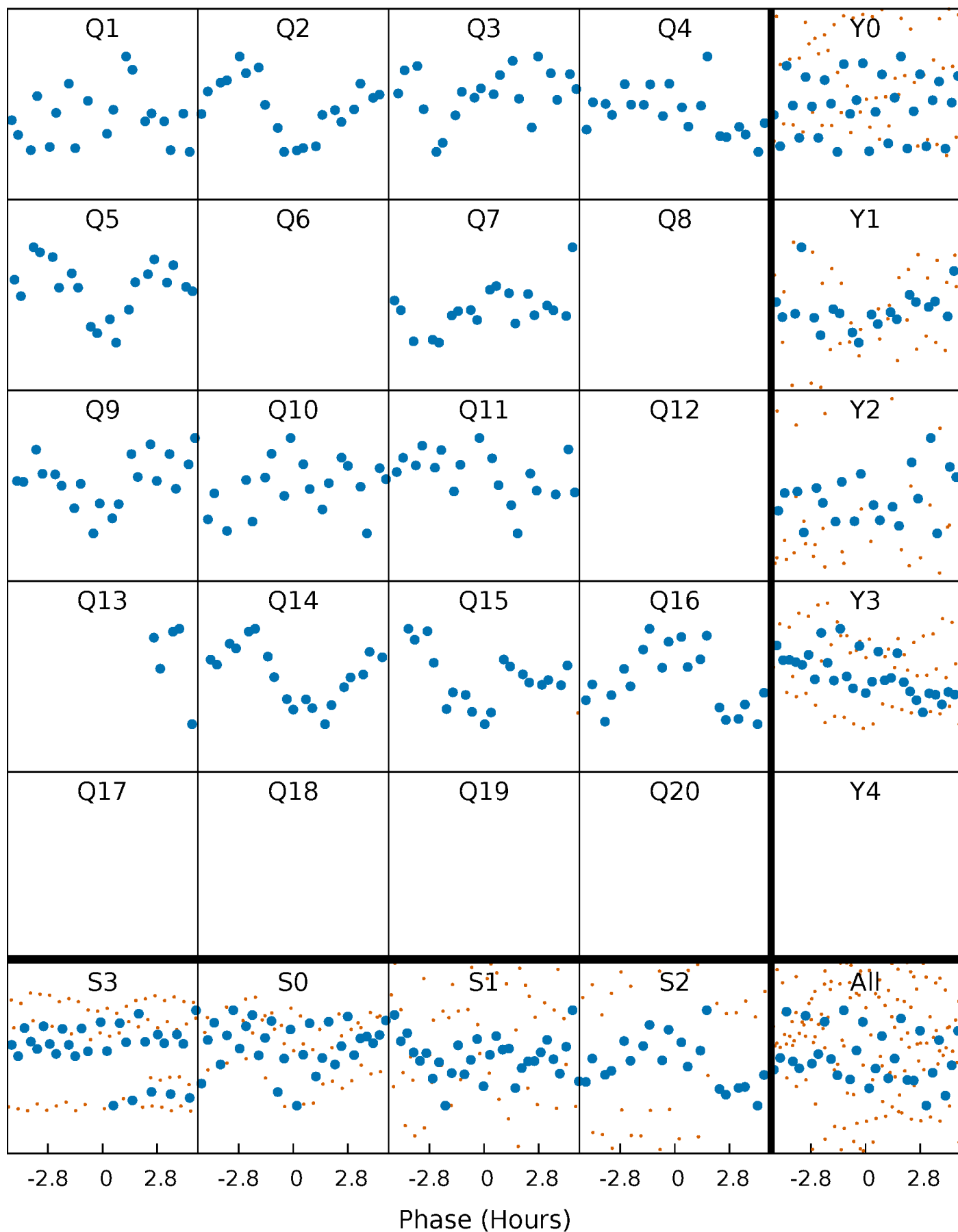


Planet 6 : Phased Whitened Flux Time Series (Fit Epoch/Period)



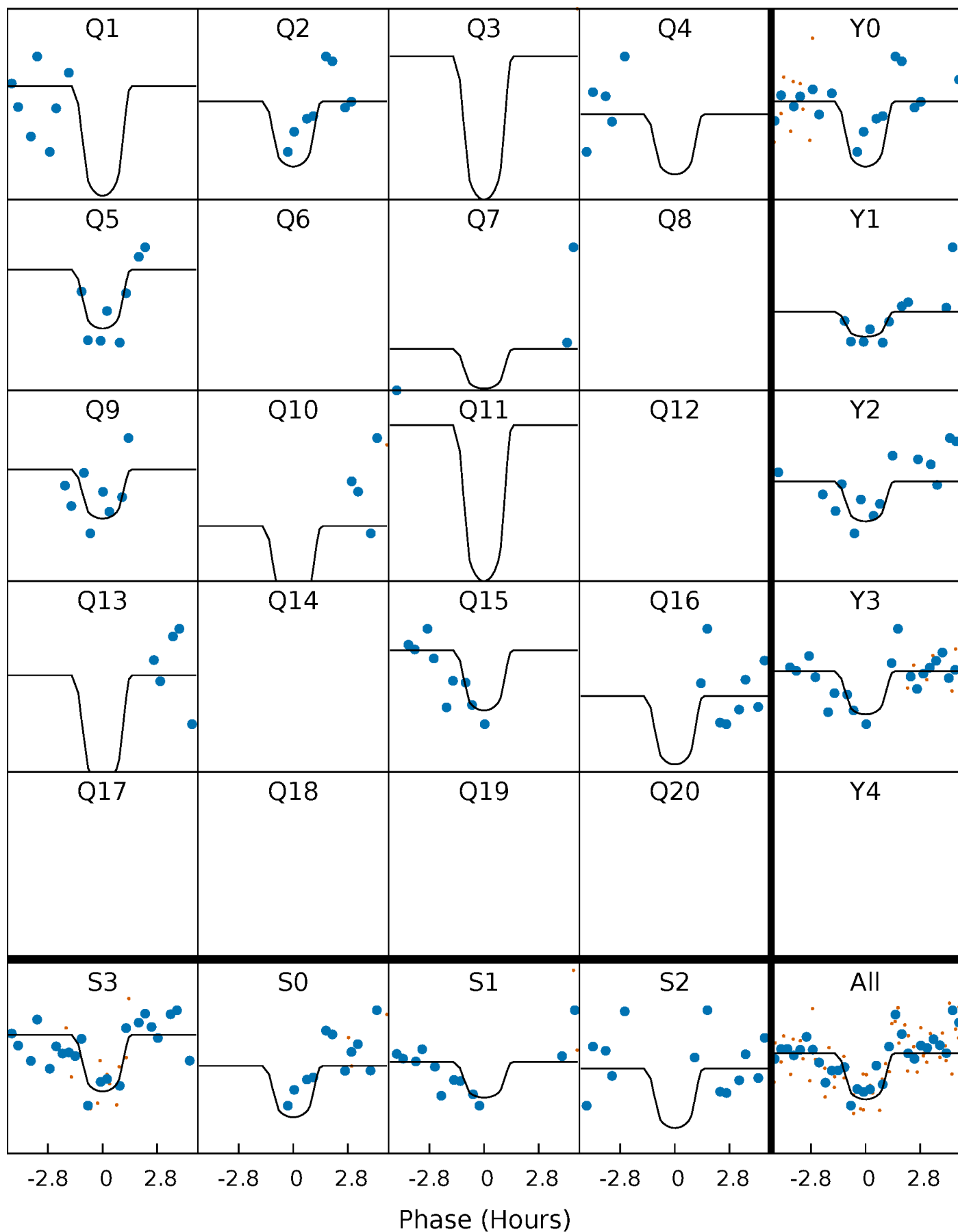
PDC Quarter-Phased Transit Curves

TCE 005653693-06 P= 97.206434 Days $T_0=146.343636$ (BKJD)



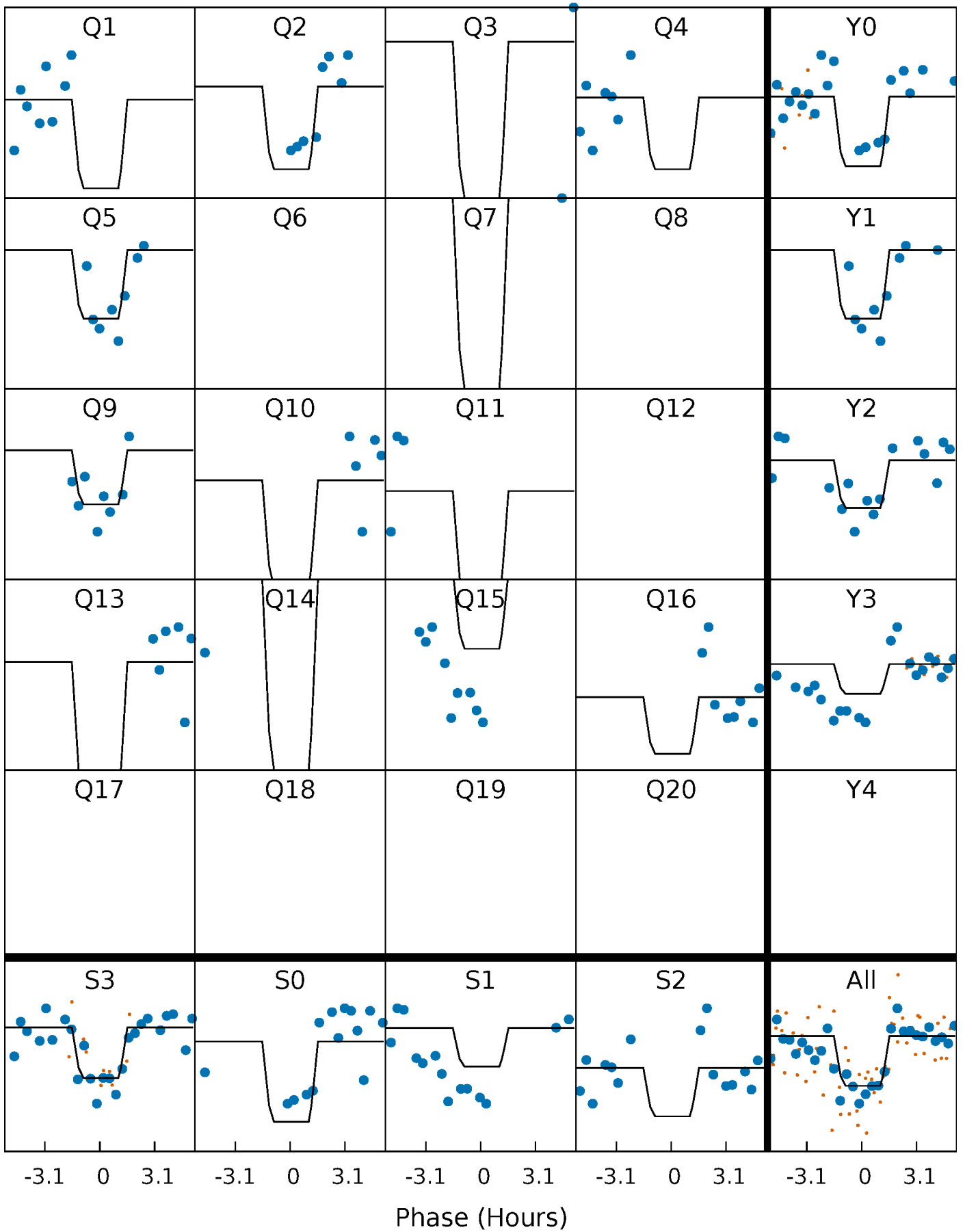
DV Quarter-Phased Transit Curves

TCE 005653693-06 P= 97.206434 Days $T_0=146.343636$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

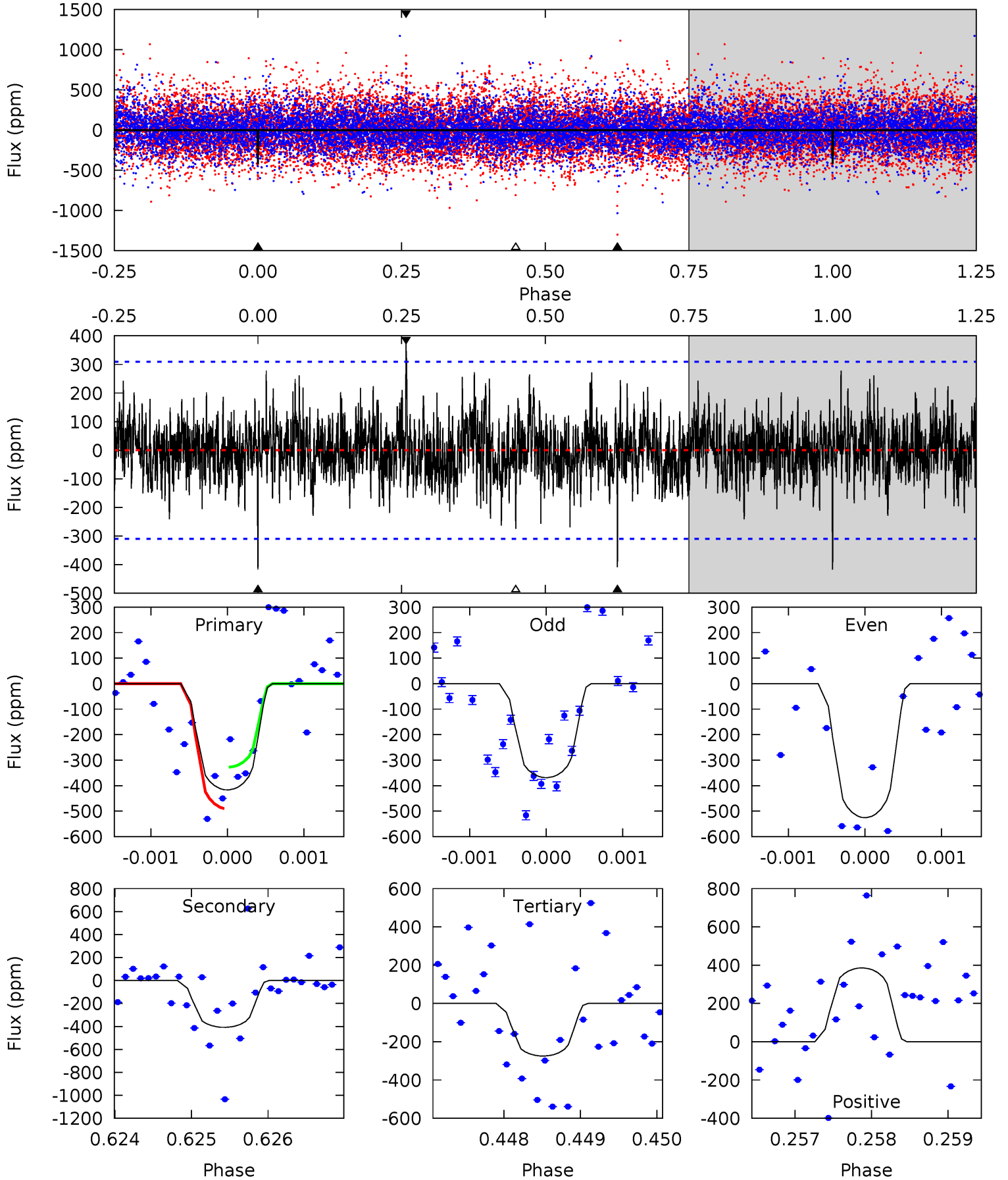
TCE 005653693-06 P= 97.206142 Days $T_0=146.331311$ (BKJD)



DV Model-Shift Uniqueness Test

005653693-06, P = 97.206434 Days, E = 49.137202 Days

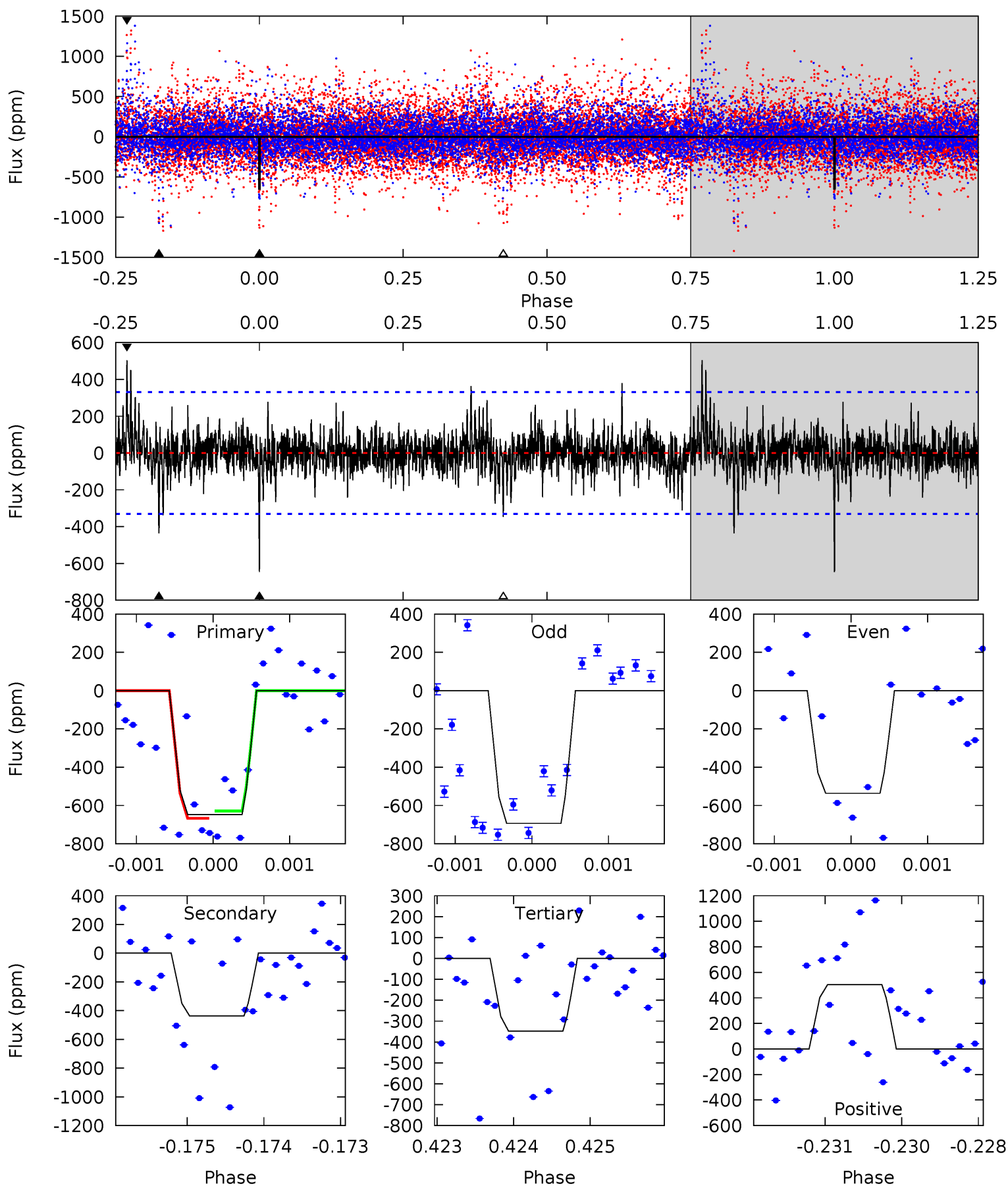
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
7.31	7.17	4.82	6.77	5.43	3.26	1.45	2.49	0.54	2.35	0.40	1.30	0.93	0.48	1.43



Alt Model-Shift Uniqueness Test

005653693-06, P = 97.206142 Days, E = 49.125169 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.6	7.16	5.70	8.26	5.42	3.24	1.36	4.91	2.35	1.46	-1.10	1.27	1.15	0.44	0.31



Stellar Parameters For KIC 005653693

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	5127^{+153}_{-138}	$4.558^{+0.084}_{-0.052}$	$-0.420^{+0.350}_{-0.300}$	$0.724^{+0.074}_{-0.074}$	$0.690^{+0.095}_{-0.044}$	$2.565^{+0.853}_{-0.446}$
	+3%/-3%	+2%/-1%	+83%/-71%	+10%/-10%	+14%/-6%	+33%/-17%
Source	PHO1	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 005653693-06 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-408 ± 57	$2.45^{+1.96}_{-1.54}$	443^{+17}_{-17}	4326^{+2502}_{-797}	4990^{+33943}_{-3436}
Alt.	-437 ± 61	$2.45^{+1.91}_{-1.55}$	443^{+17}_{-17}	4370^{+2572}_{-804}	5385^{+37723}_{-3695}

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 $A_{\text{obs}} \gg 1.0$

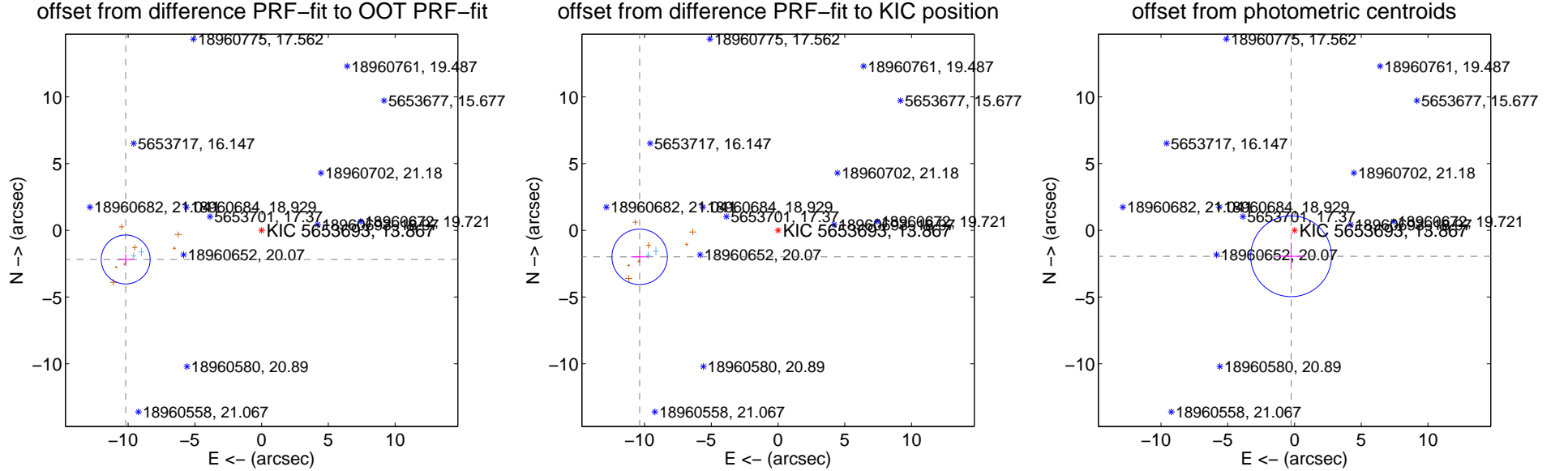
DV Centroid Data

Supplemental centroid analysis for 005653693-06. Kepler magnitude: 13.87. Transit SNR 7.38

There are 2 quarters with good PRF difference image offsets

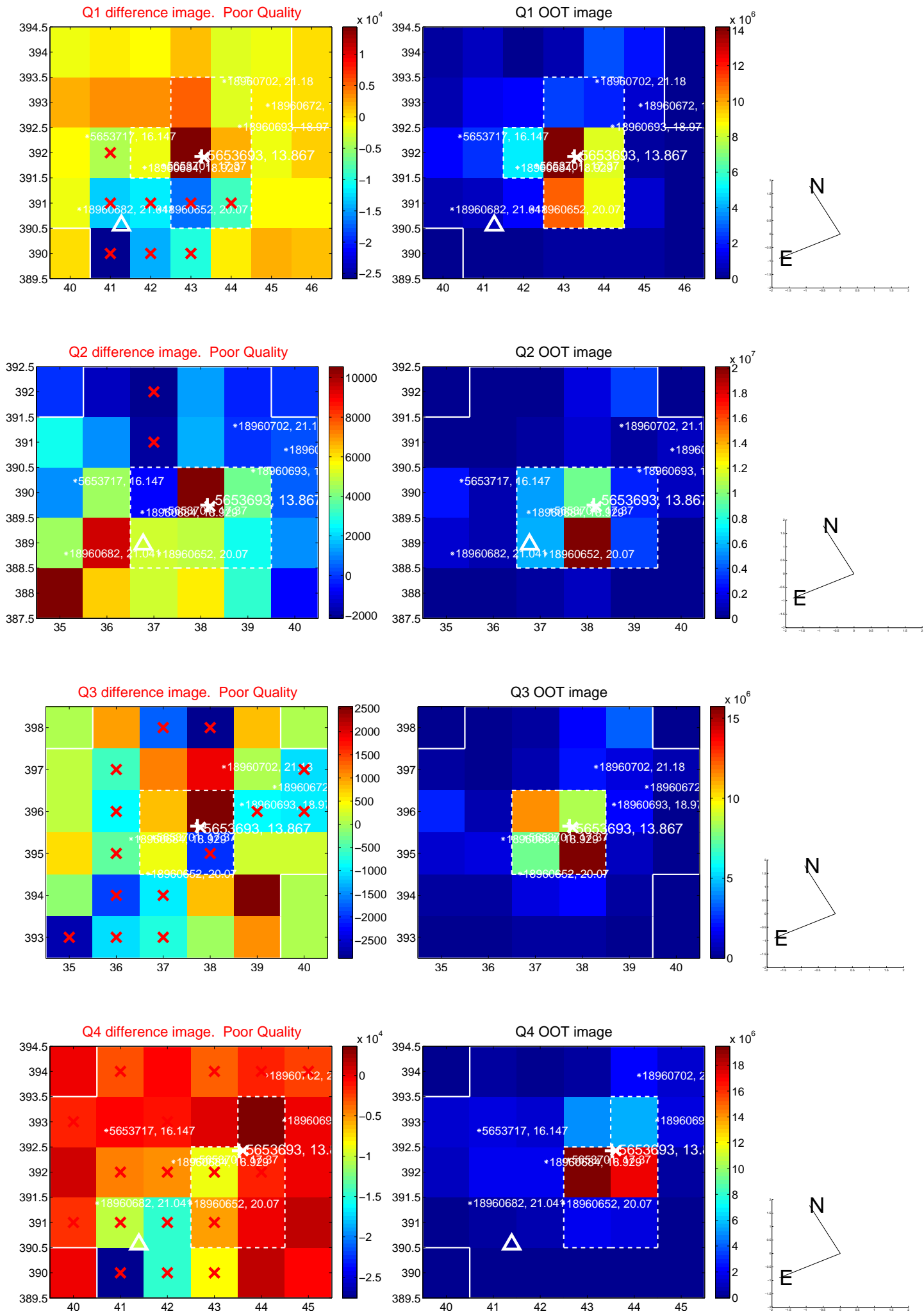
The direct PRF centroid is offset from the target star catalog position by about 0.27 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	10.418 ± 0.611	17.04	10.186 ± 0.577	-2.186 ± 0.399
PRF-fit source offset from KIC position	10.560 ± 0.693	15.25	10.371 ± 0.650	-1.988 ± 0.420
photometric centroid source offset	1.96 ± 1.01	1.94	0.26 ± 1.06	-1.95 ± 1.01

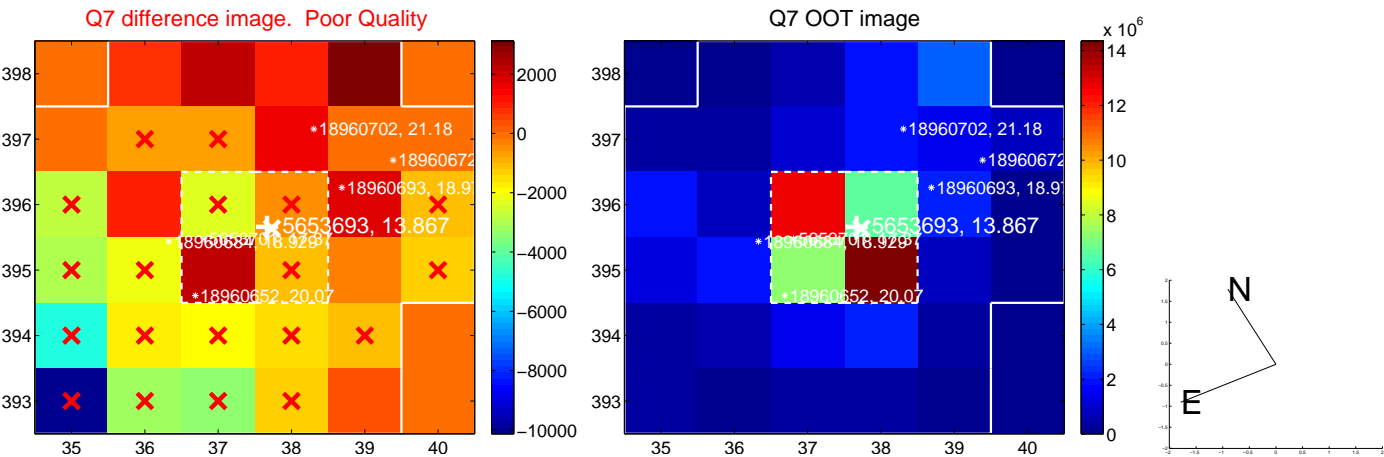
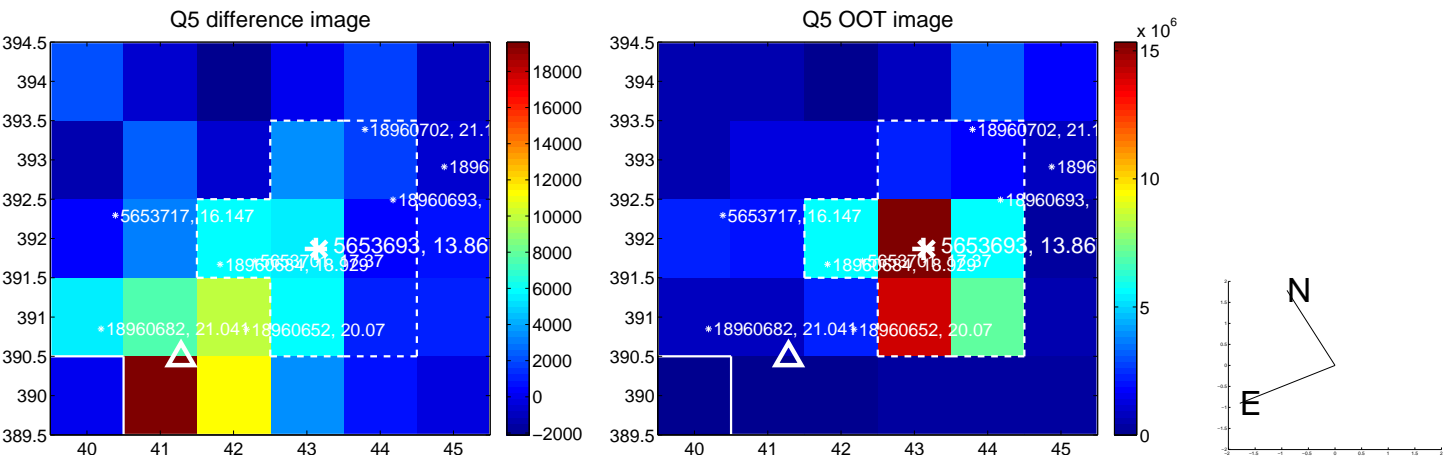


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

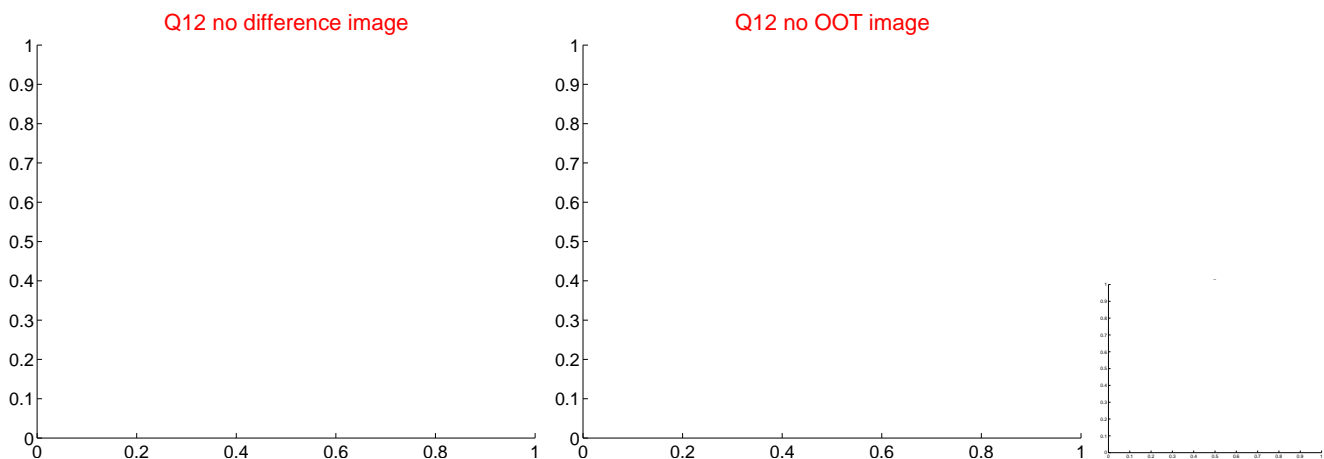
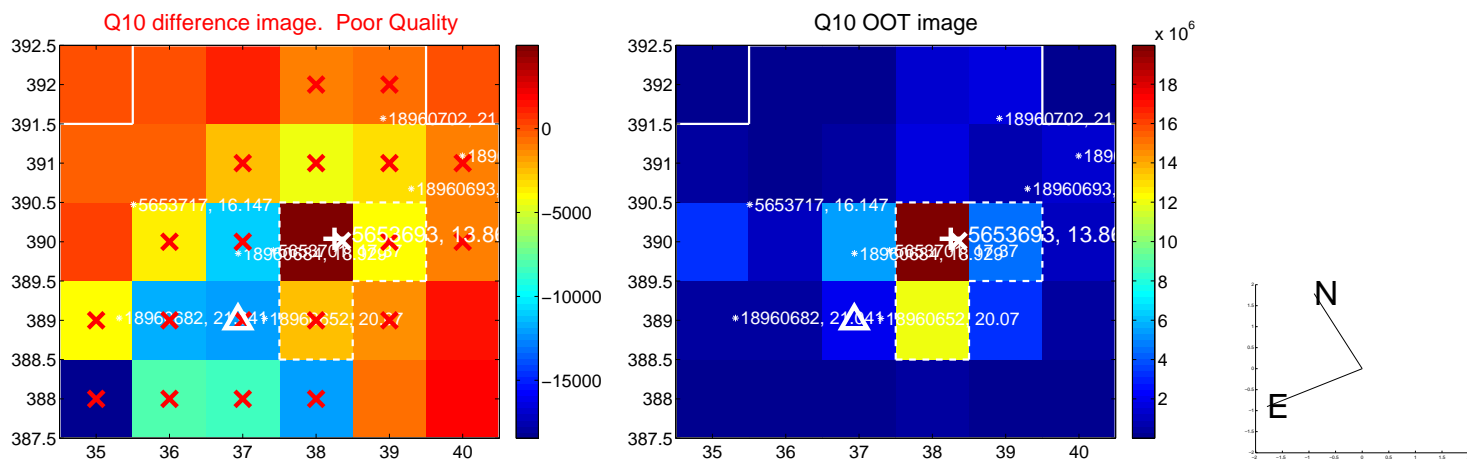
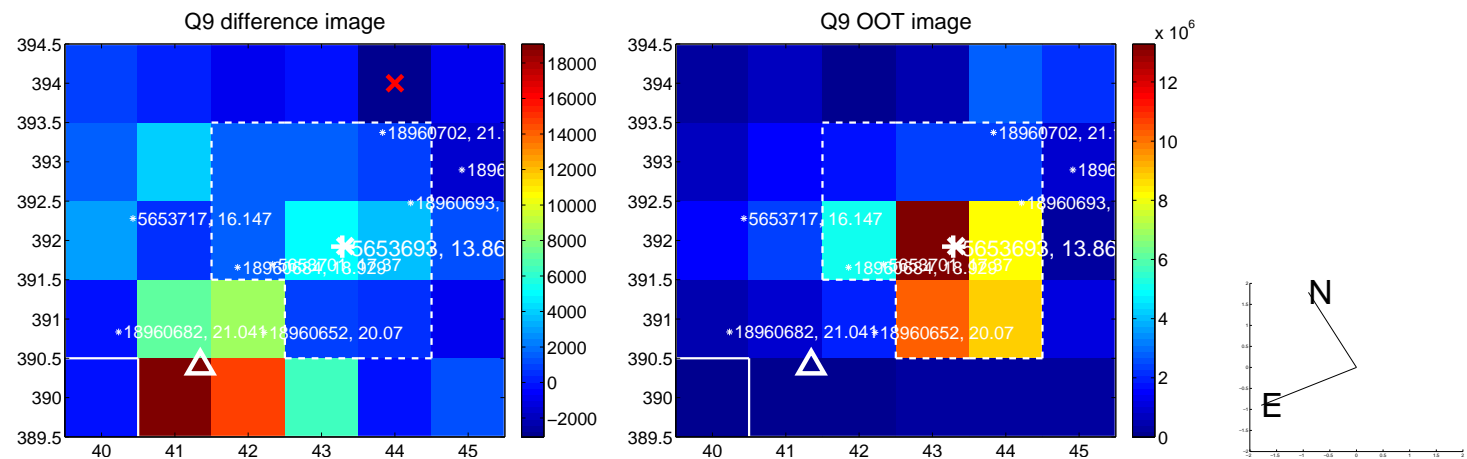
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



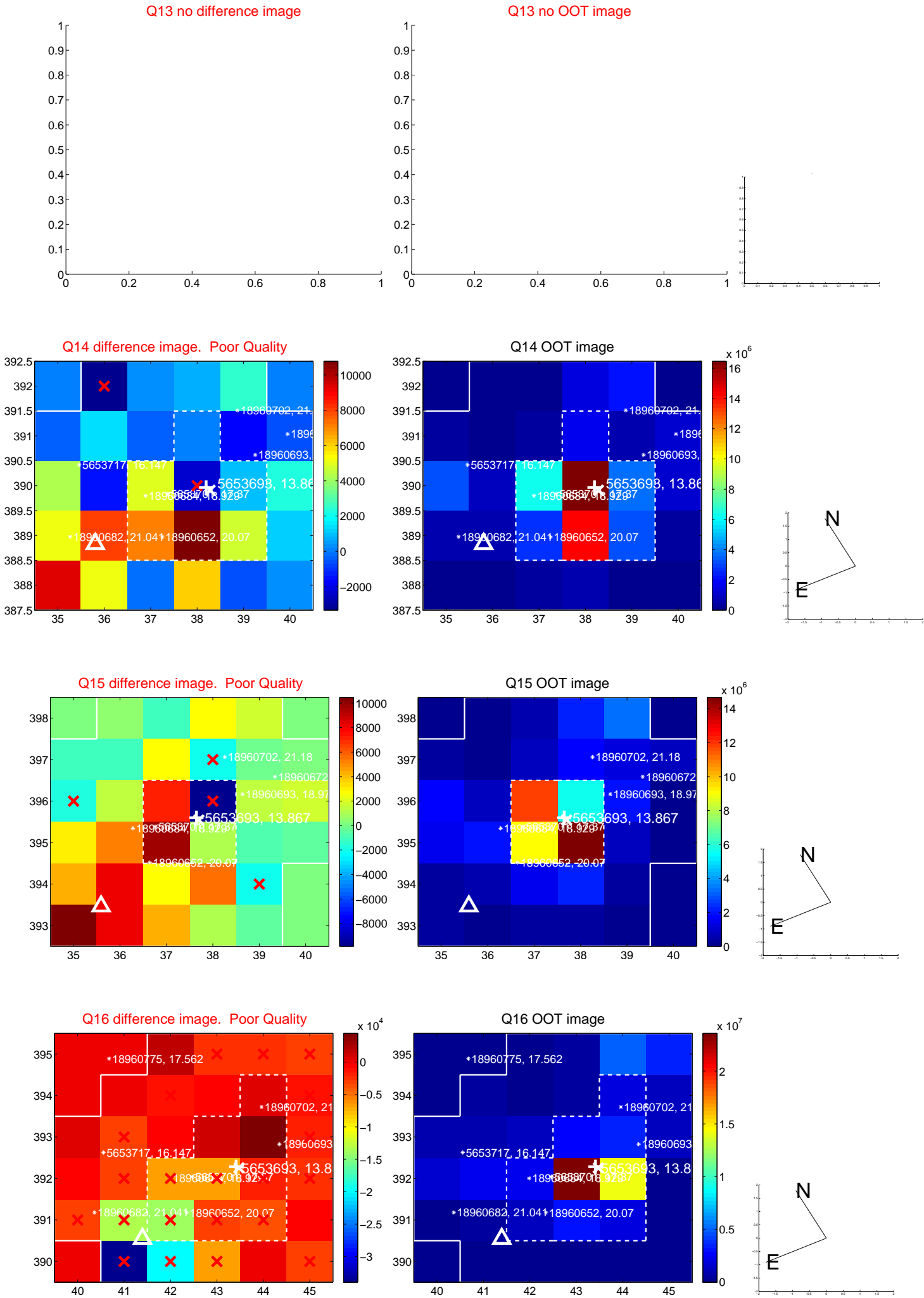
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



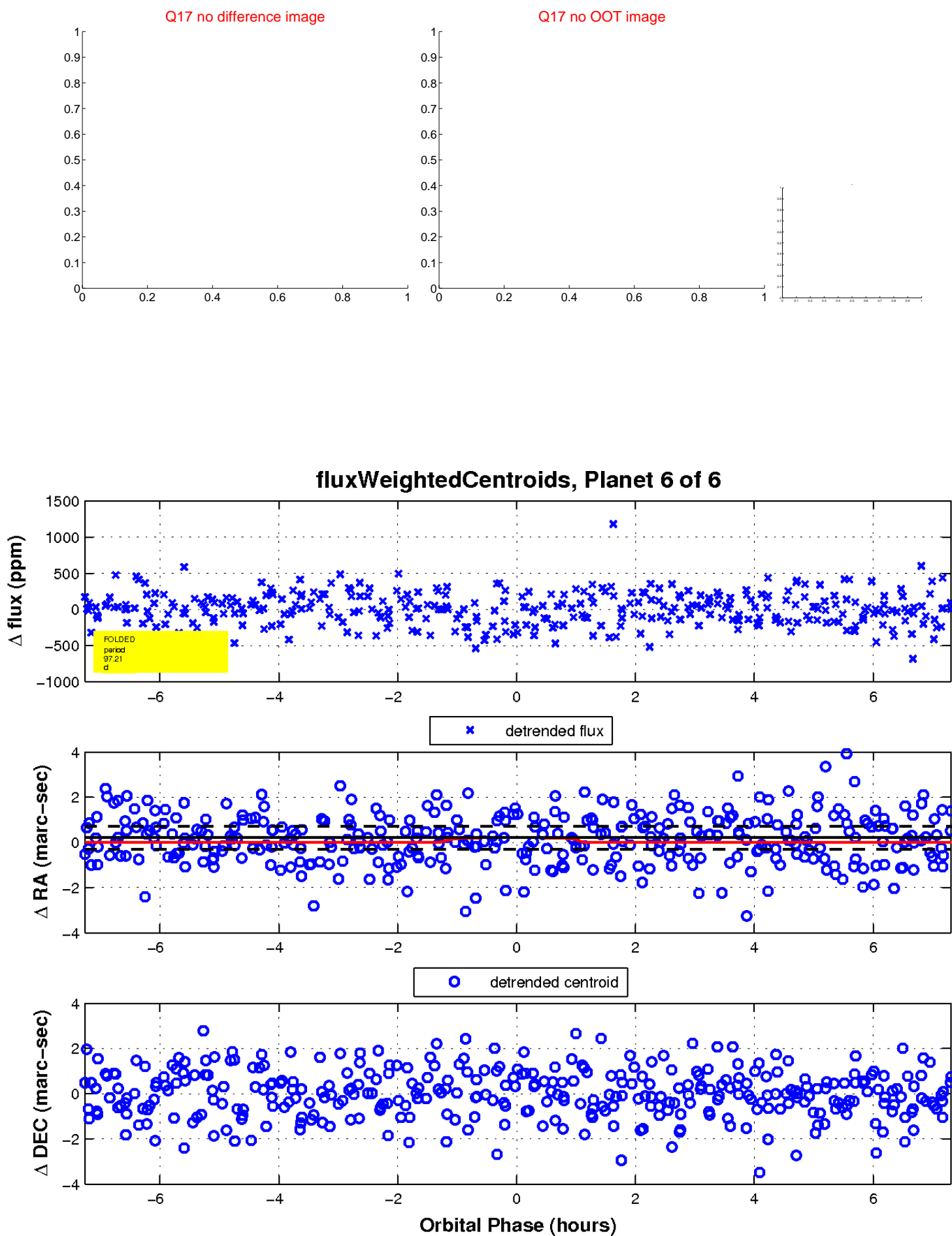
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

