

KIC 005130890

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})
005130890-01	OBS	No	1.314977	132.045531	8.2	4.555	7.8	5.9	2.20	9251	0.70	33866.32
005130890-02	OBS	No	50.546394	166.912675	21.1	5.787	7.7	1.9	2.20	9251	1.12	261.06
005130890-03	OBS	No	2.972695	132.199526	13.9	28.035	8.2	8.2	2.20	9251	0.84	11414.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005130890-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
005130890-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005130890-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS

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 005130890-01

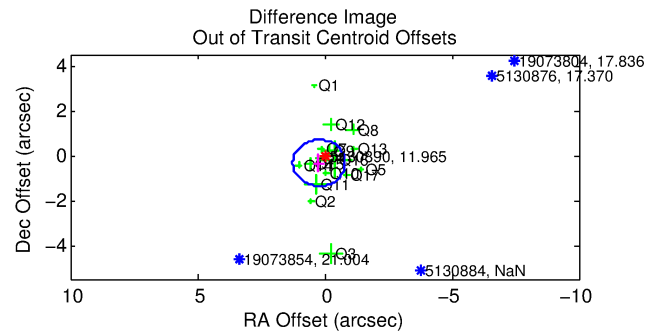
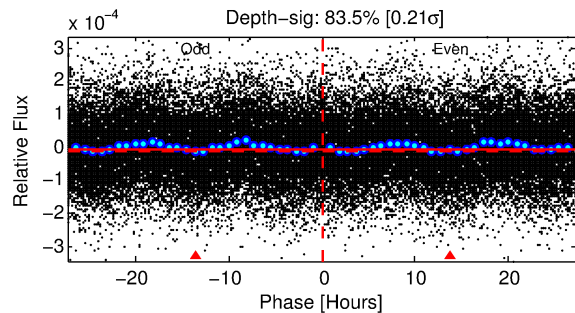
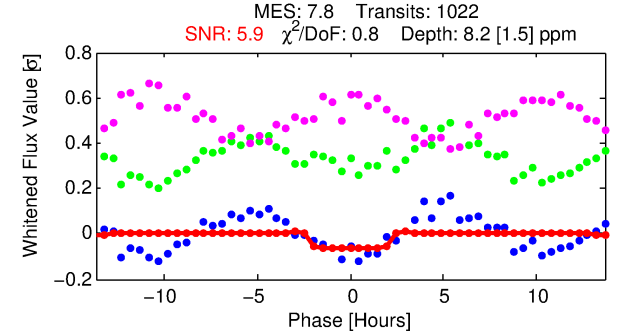
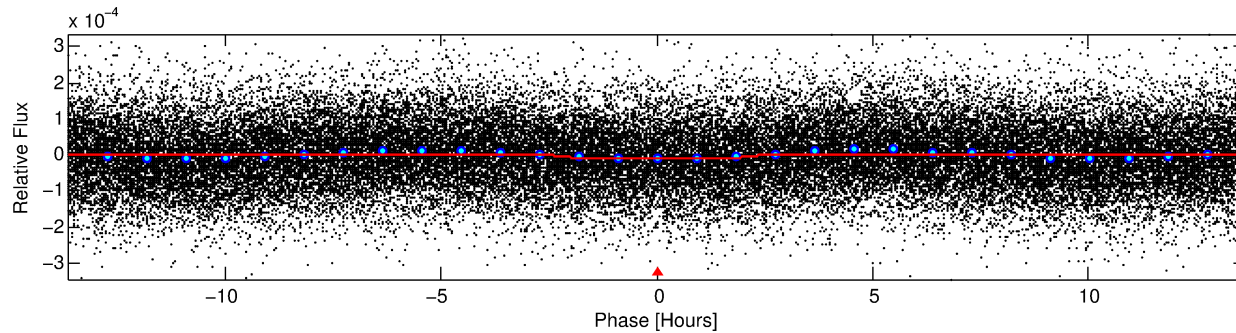
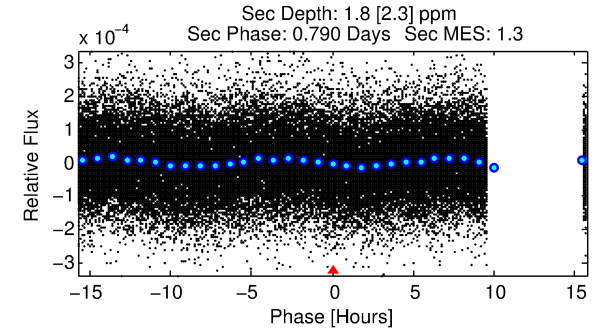
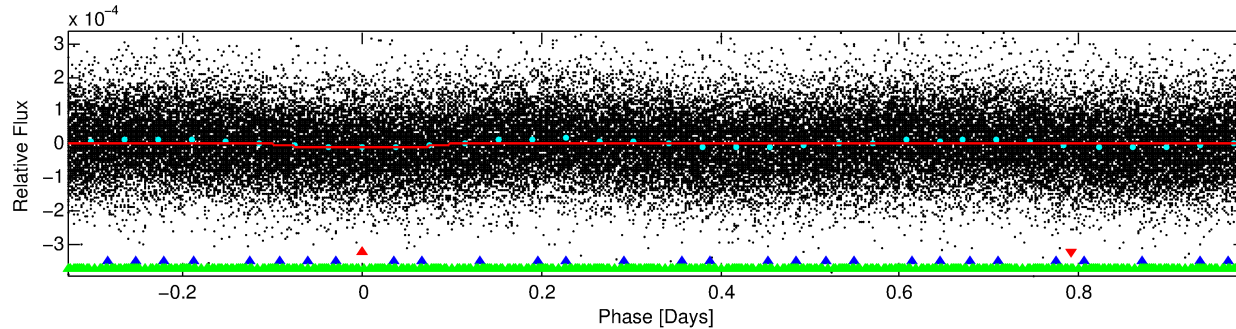
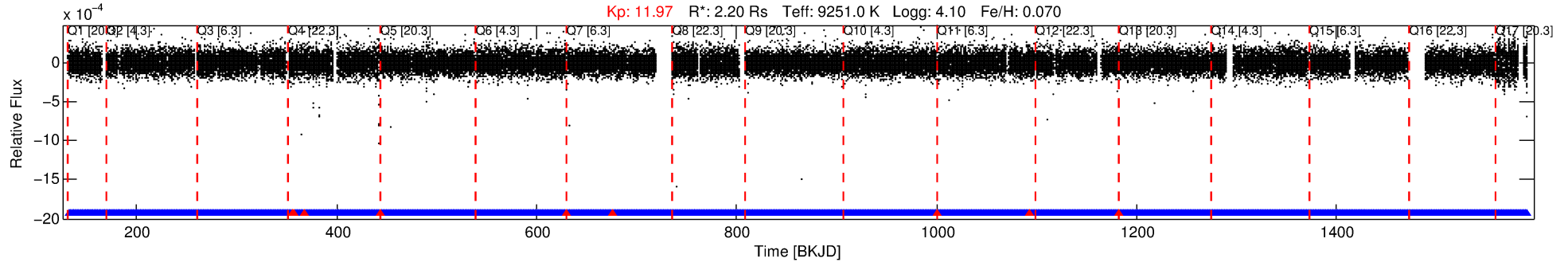
No Significant Match Found

DV One-Page Summary

KIC: 5130890 Candidate: 1 of 3 Period: 1.315 d

KOI: K06530 Corr: No Ephemeris Match

Kp: 11.97 R*: 2.20 Rs Teff: 9251.0 K Logg: 4.10 Fe/H: 0.070



DV Fit Results:

Period = 1.31498 [0.00002] d
Epoch = 132.0455 [0.0063] BKJD
Rp/R* = 0.0029 [0.0006]
a/R* = 1.50 [1.20]
b = 0.84 [0.50]
Seff = 33866.32 [15731.53]
Teff = 3459 [402] K
Rp = 0.70 [0.33] Re
a = 0.0307 [0.0097] AU
Ag = 1.90 [2.64] [0.34σ]
Teffp = 6276 [2104] K [1.32σ]

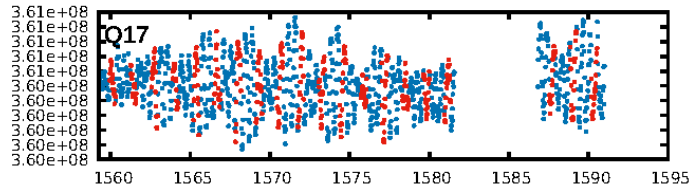
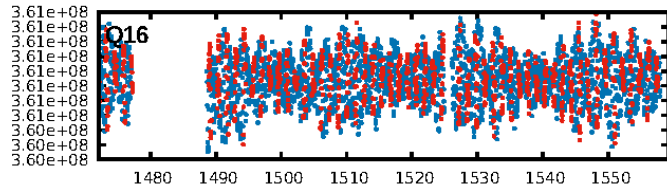
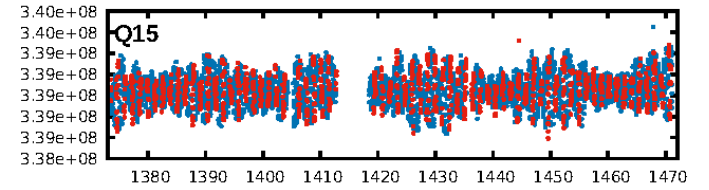
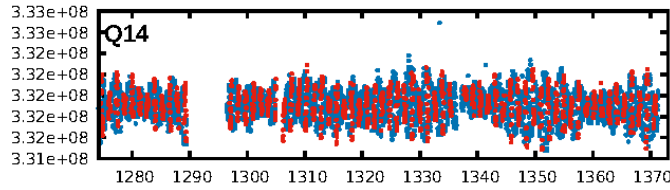
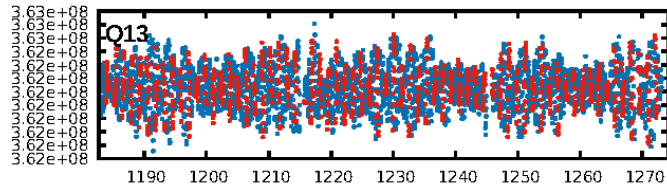
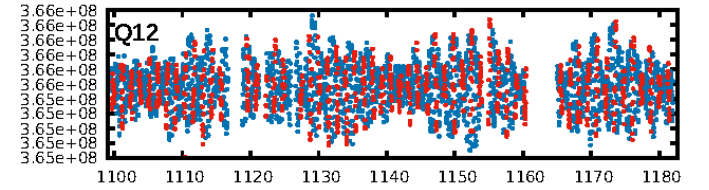
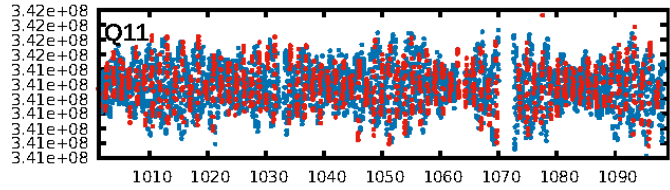
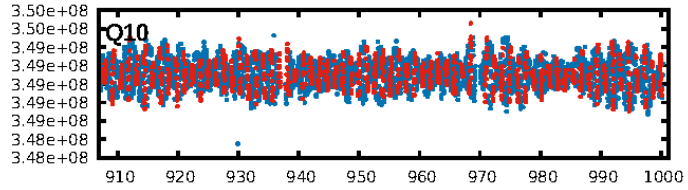
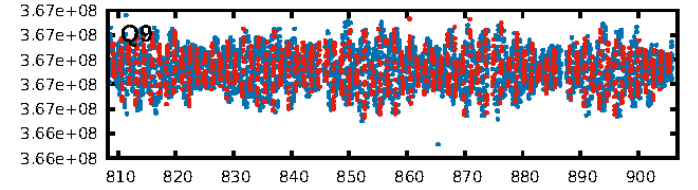
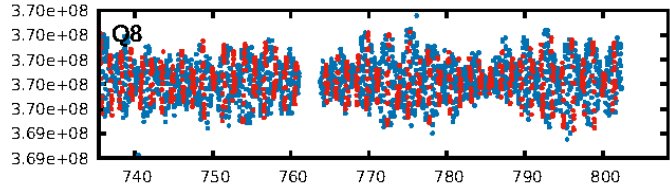
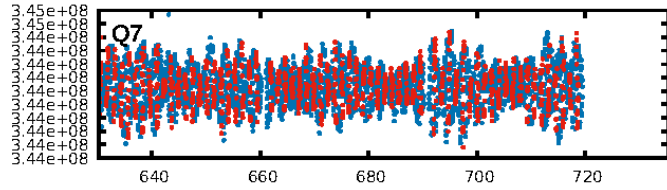
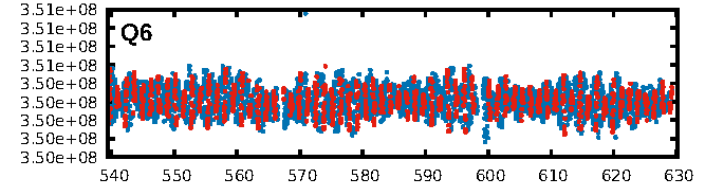
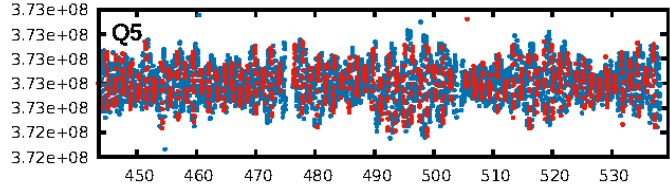
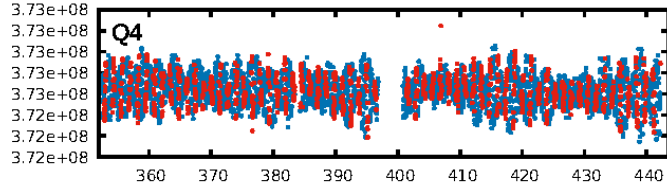
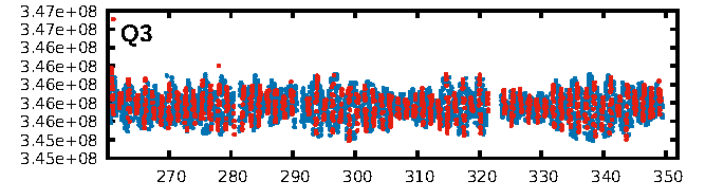
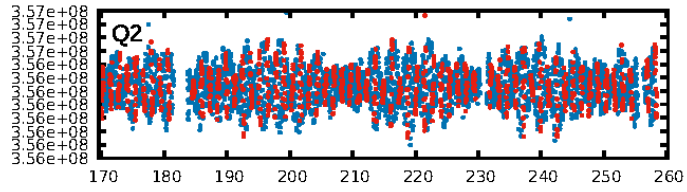
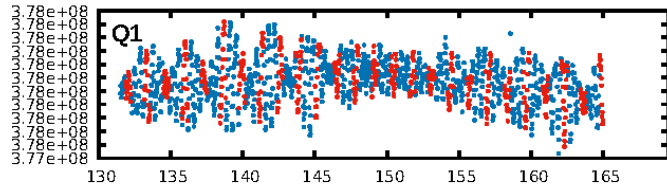
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 83.9% [1.40σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [967/976]
GhostDiagnostic-chr: 1.035
Centroid-sig: 15.7%
Centroid-so: 2.265 arcsec [1.06σ]
OotOffset-rm: 0.407 arcsec [1.19σ]
OotOffset-st: 3/4/4/5 [16]
KicOffset-rm: 0.367 arcsec [0.96σ]
KicOffset-st: 3/4/4/5 [16]
DiffImageQuality-fgm: 0.56 [9/16]
DiffImageOverlap-fno: 1.00 [17/17]

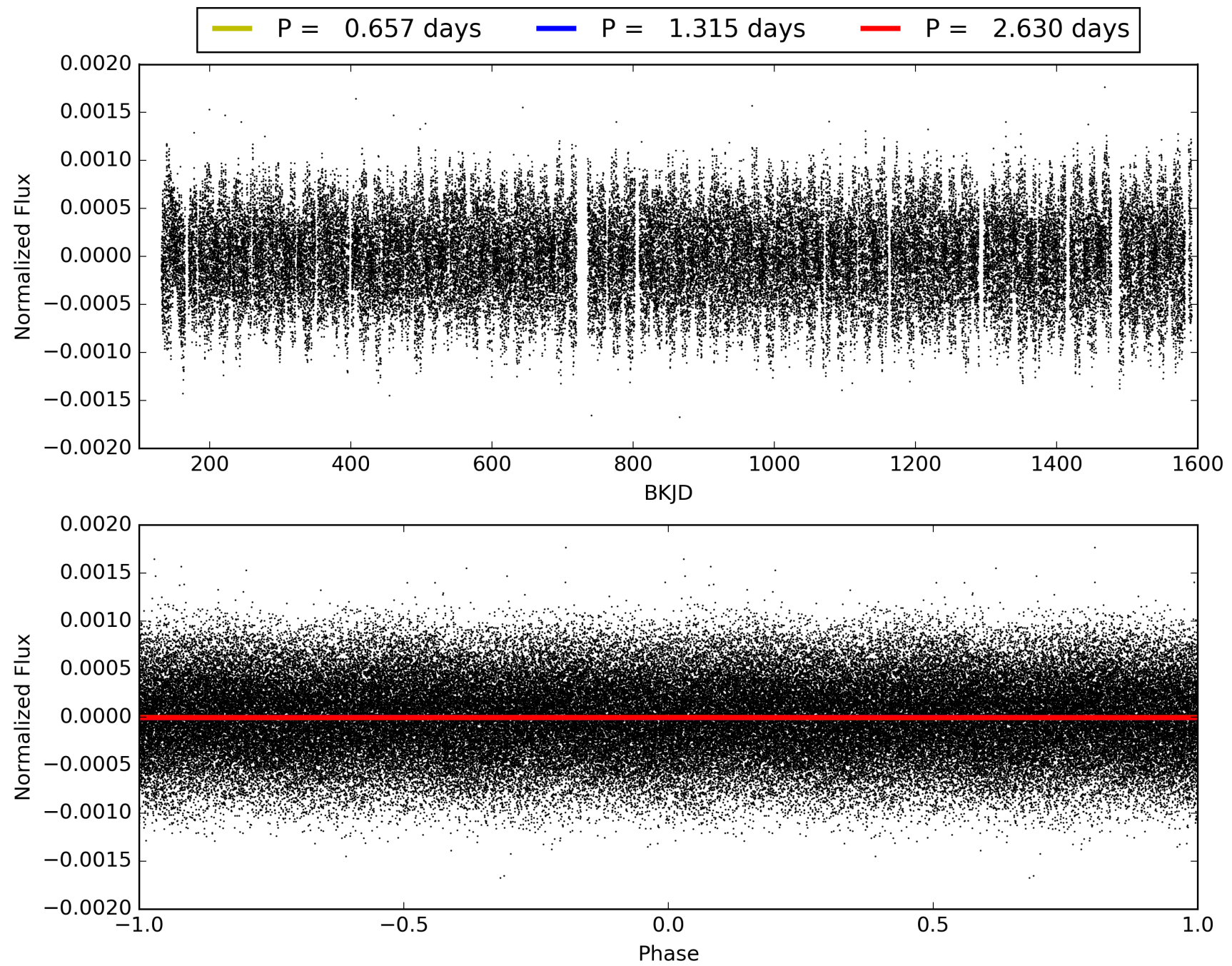
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This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 005130890-01, PDC Light Curves

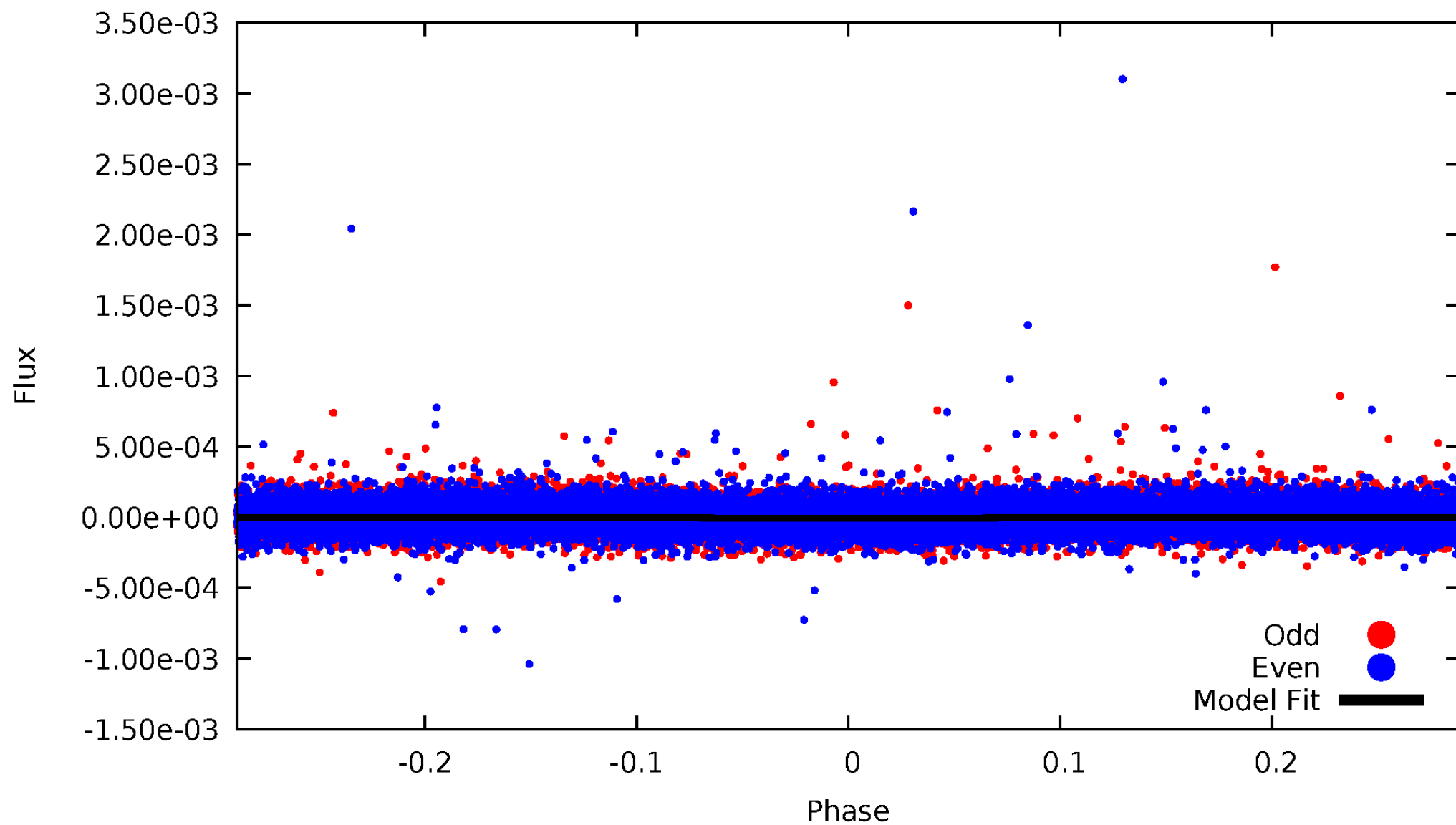


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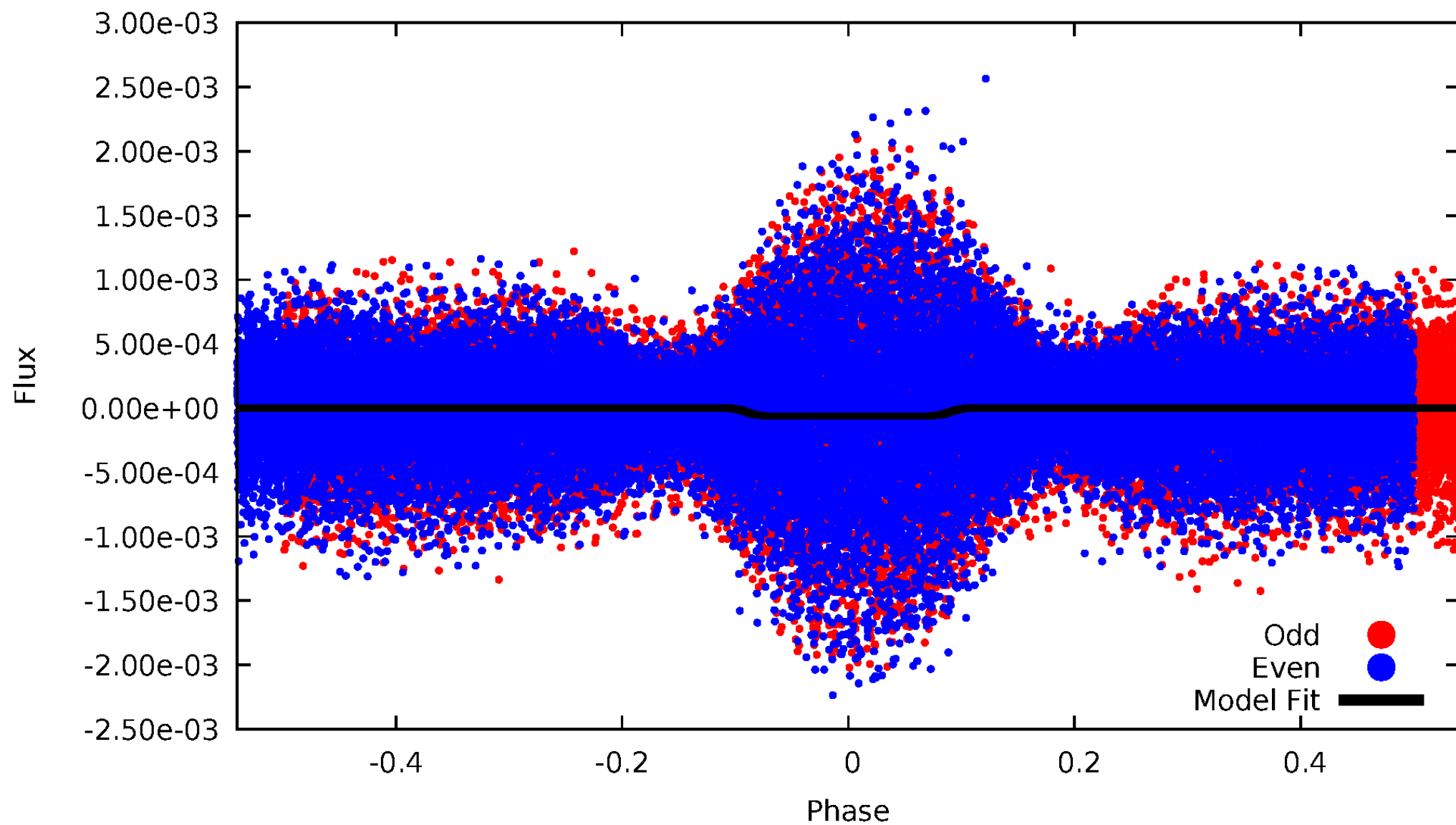
DV Odd/Even

TCE 005130890-01

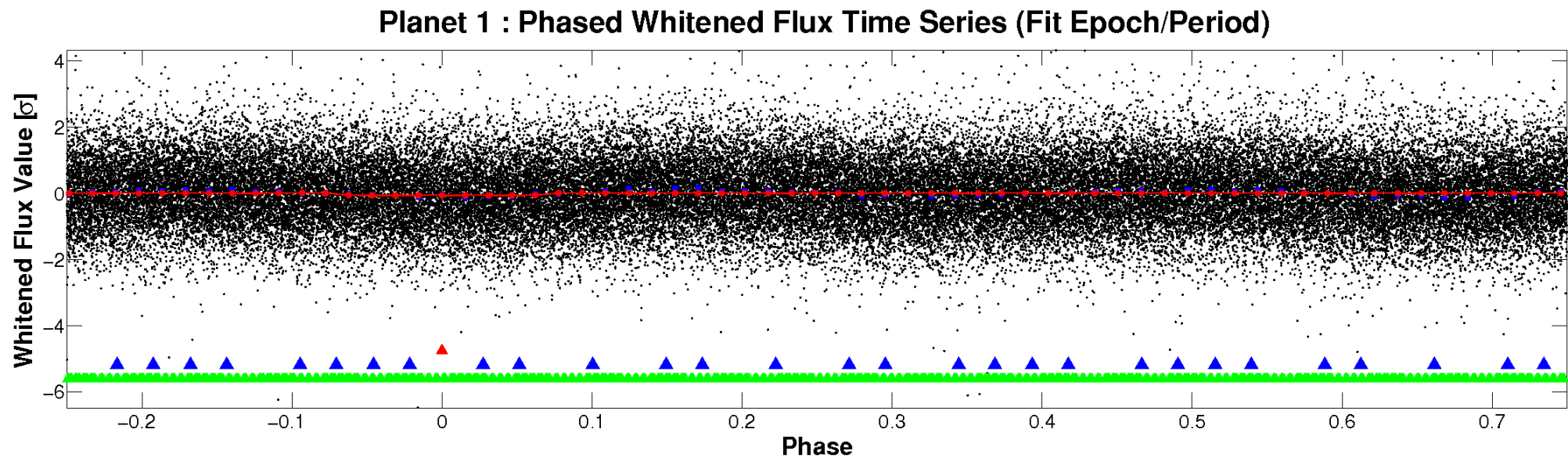
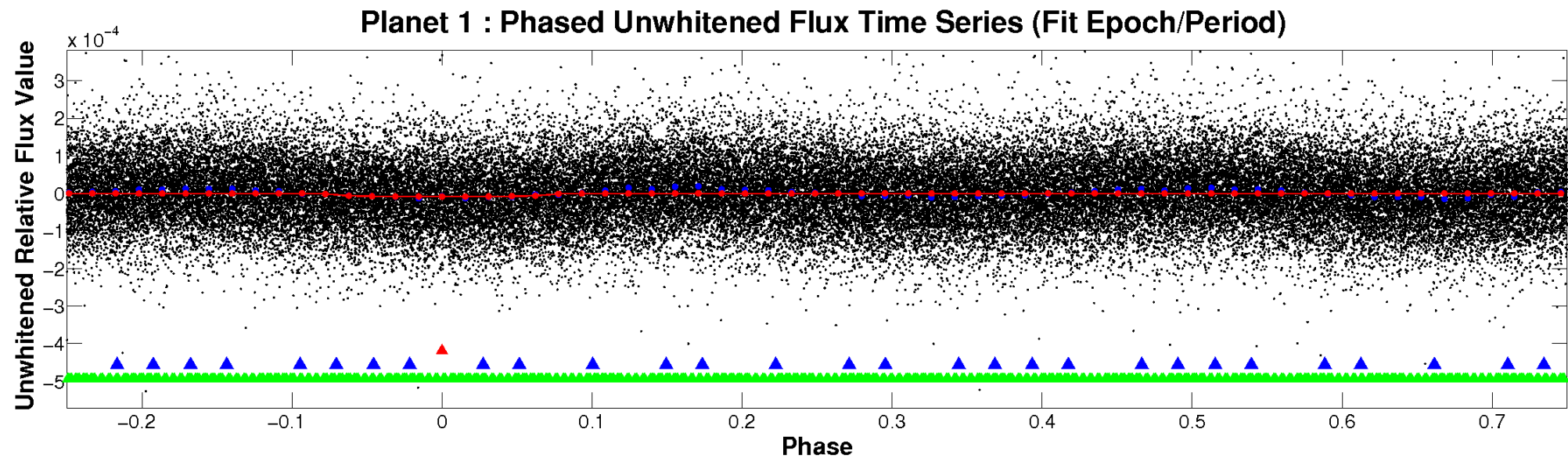


ALT Odd/Even

TCE 005130890-01

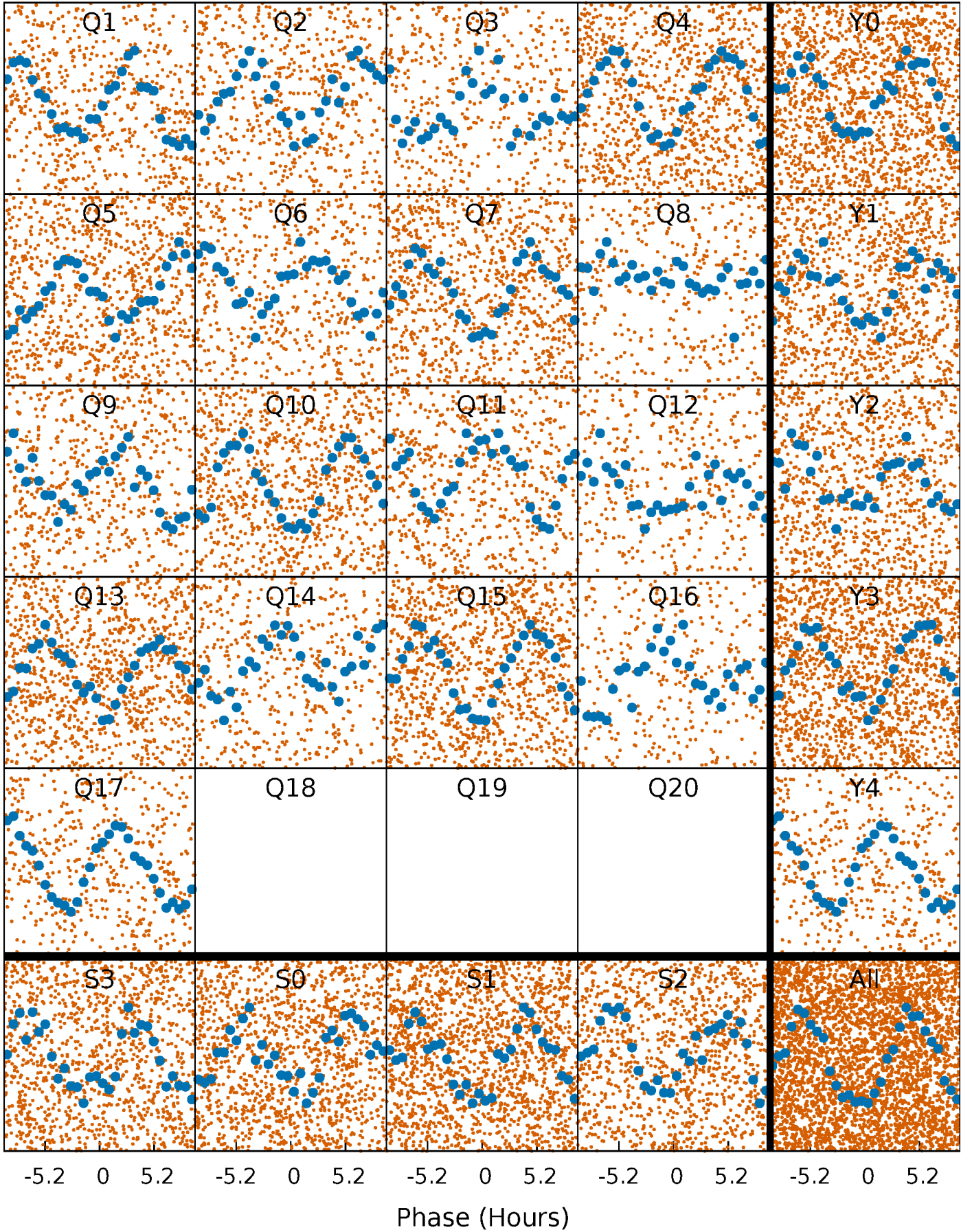


Non-Whitened Vs. Whitened Light Curve



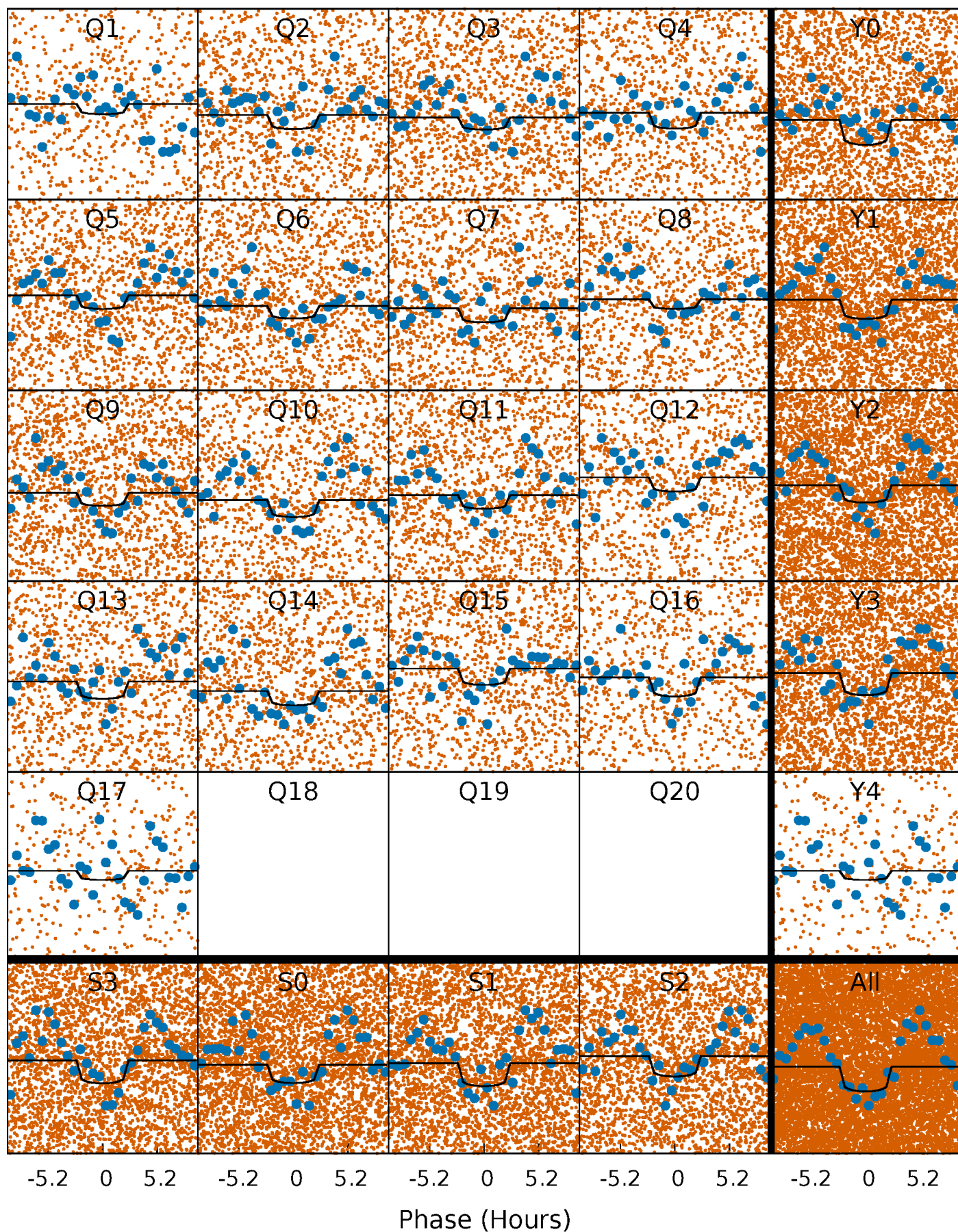
PDC Quarter-Phased Transit Curves

TCE 005130890-01 P= 1.314977 Days $T_0=132.045531$ (BKJD)



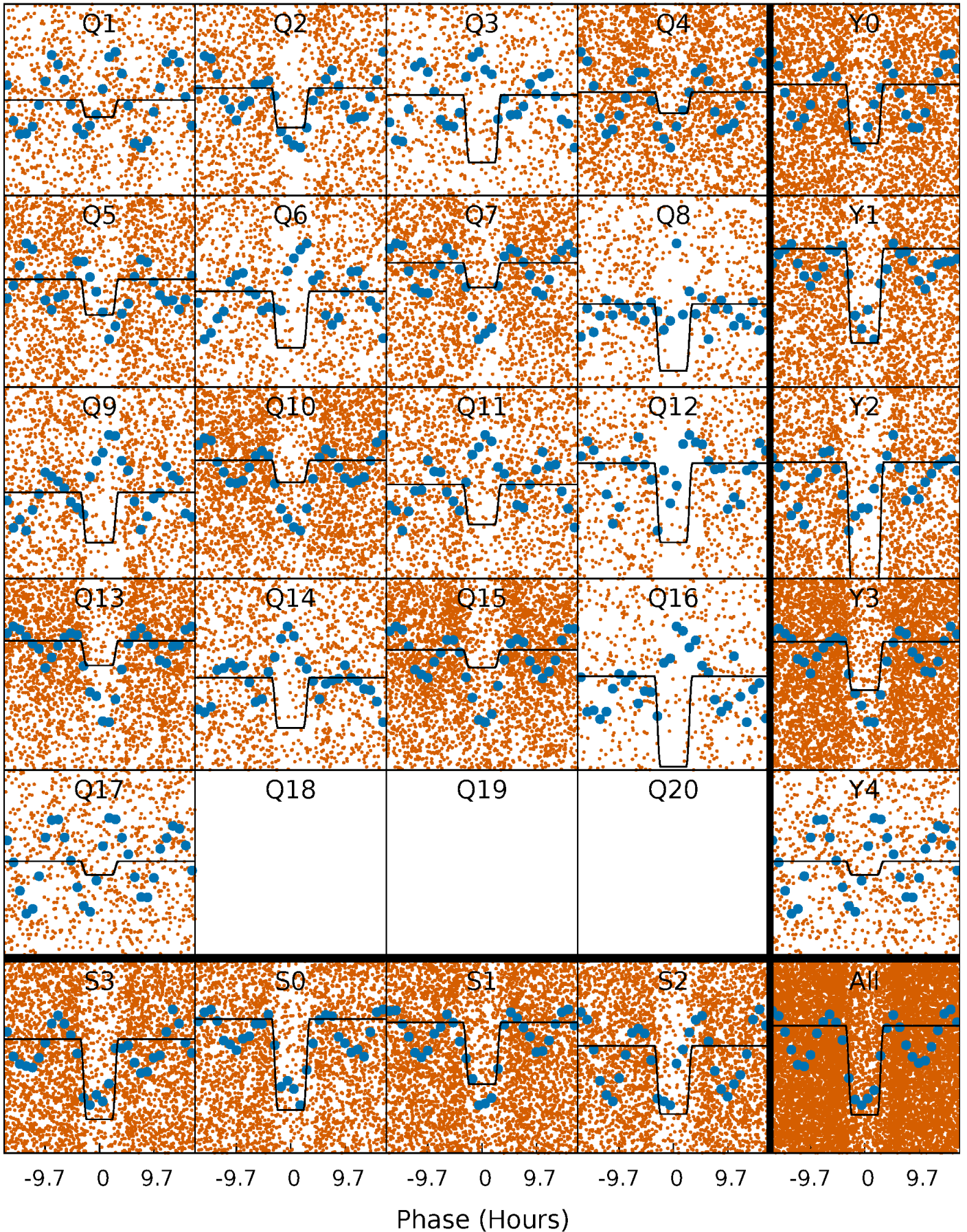
DV Quarter-Phased Transit Curves

TCE 005130890-01 P= 1.314977 Days $T_0=132.045531$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

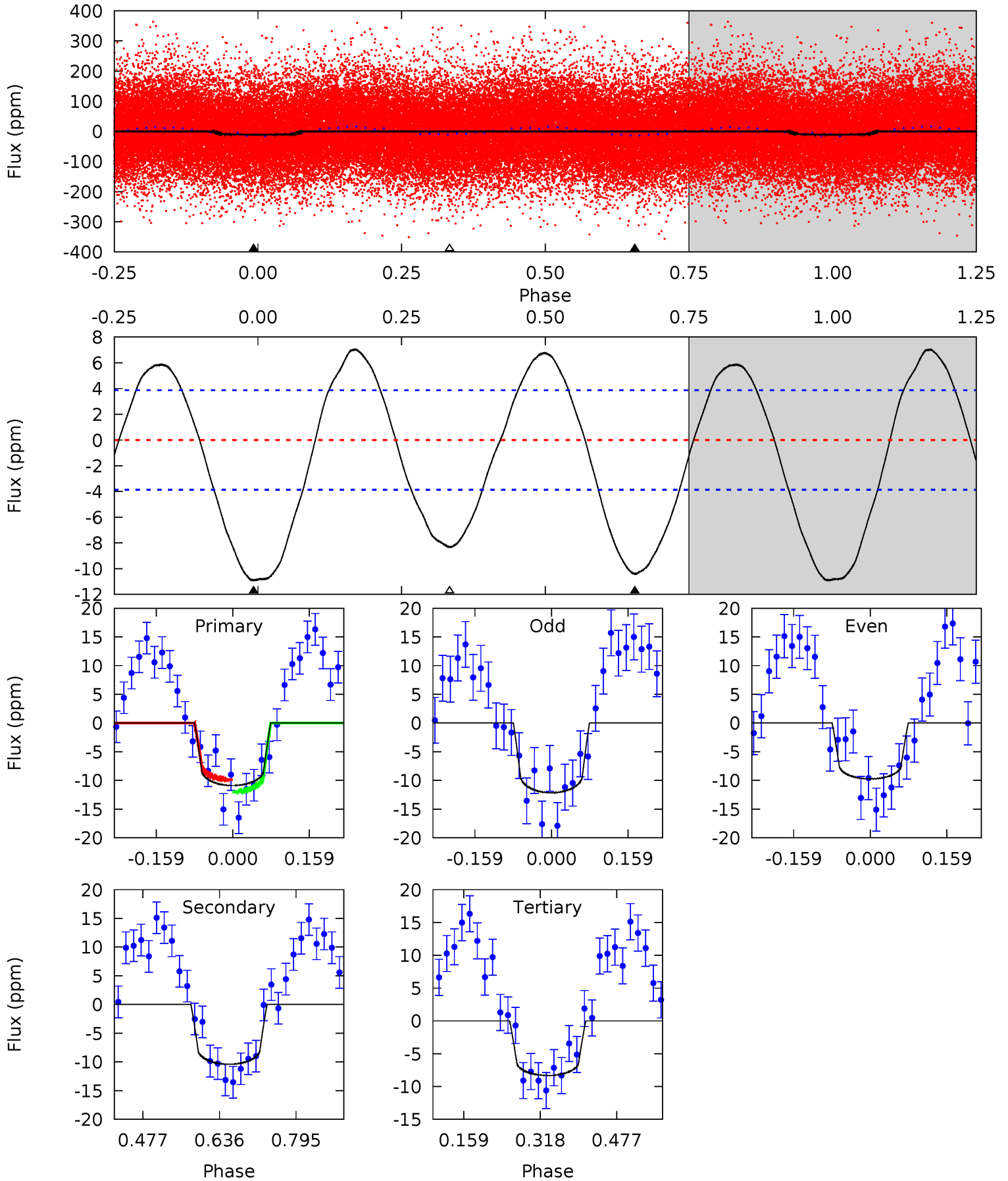
TCE 005130890-01 P= 1.314928 Days $T_0=132.061110$ (BKJD)



DV Model-Shift Uniqueness Test

005130890-01, P = 1.314977 Days, E = 130.730554 Days

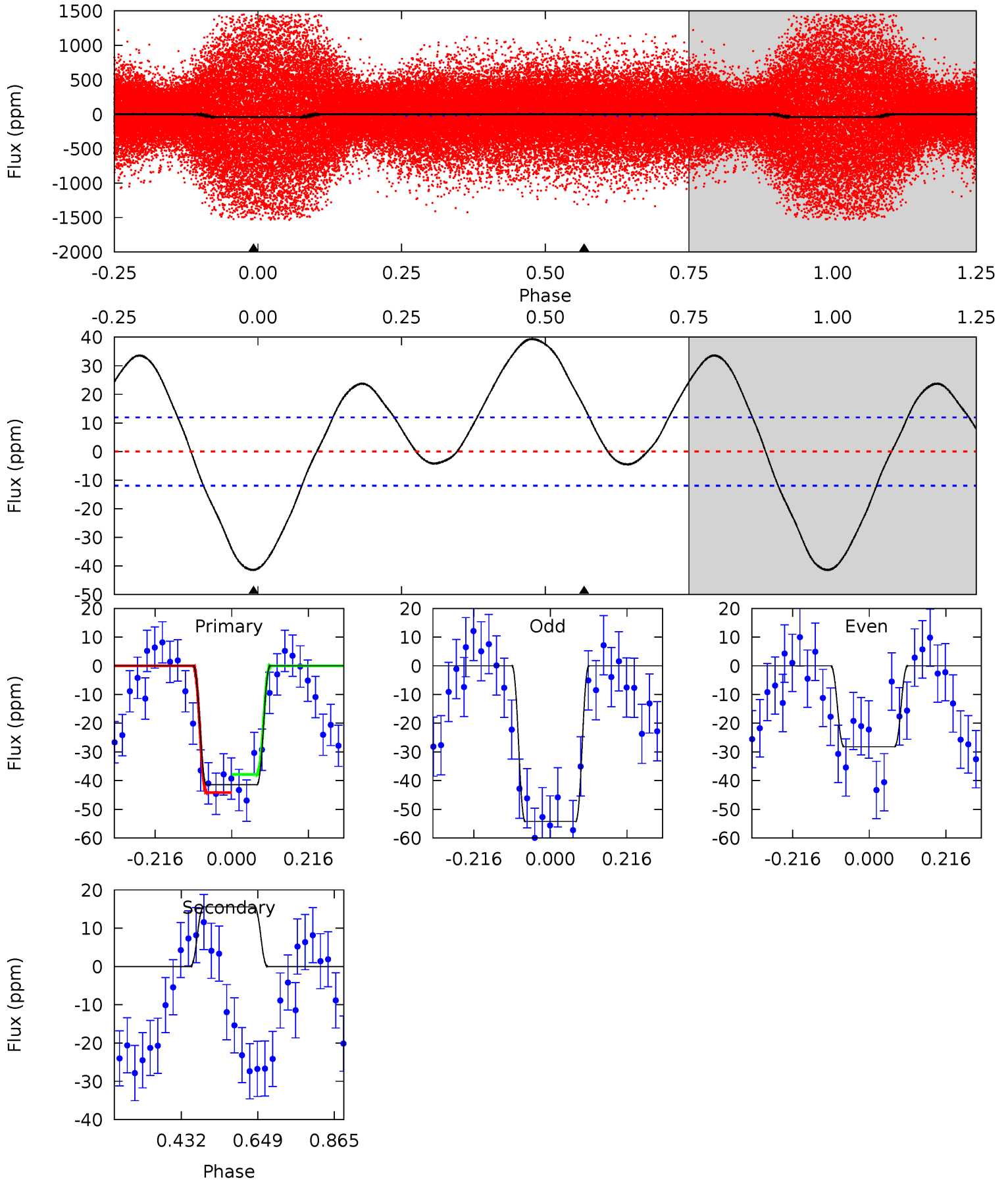
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.6	12.0	9.61	0	4.47	1.41	6.30	2.98	12.6	2.42	12.0	1.39	0.88	0.39	1.24



Alt Model-Shift Uniqueness Test

005130890-01, P = 1.314928 Days, E = 130.746182 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
15.3	-5.75	0	0	4.40	1.24	2.78	15.3	15.3	-5.75	-5.75	4.86	1.04	0.49	1.19



Stellar Parameters For KIC 005130890

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	9251^{+259}_{-444}	$4.099^{+0.123}_{-0.210}$	$0.070^{+0.150}_{-0.650}$	$2.203^{+0.905}_{-0.487}$	$2.222^{+0.386}_{-0.579}$	$0.293^{+0.218}_{-0.167}$
	+3%/-5%	+3%/-5%	+214%/-929%	+41%/-22%	+17%/-26%	+75%/-57%
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 005130890-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-10 ± 1	$0.72^{+0.22}_{-0.19}$	4861^{+430}_{-337}	9642^{+2165}_{-1222}	10^{+8}_{-4}
Alt.	16 ± 3	$1.91^{+0.41}_{-0.33}$	4880^{+439}_{-357}	-6372^{+358}_{-419}	$-2.094^{+0.654}_{-0.978}$

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 $A_{obs} \gg 1.0$

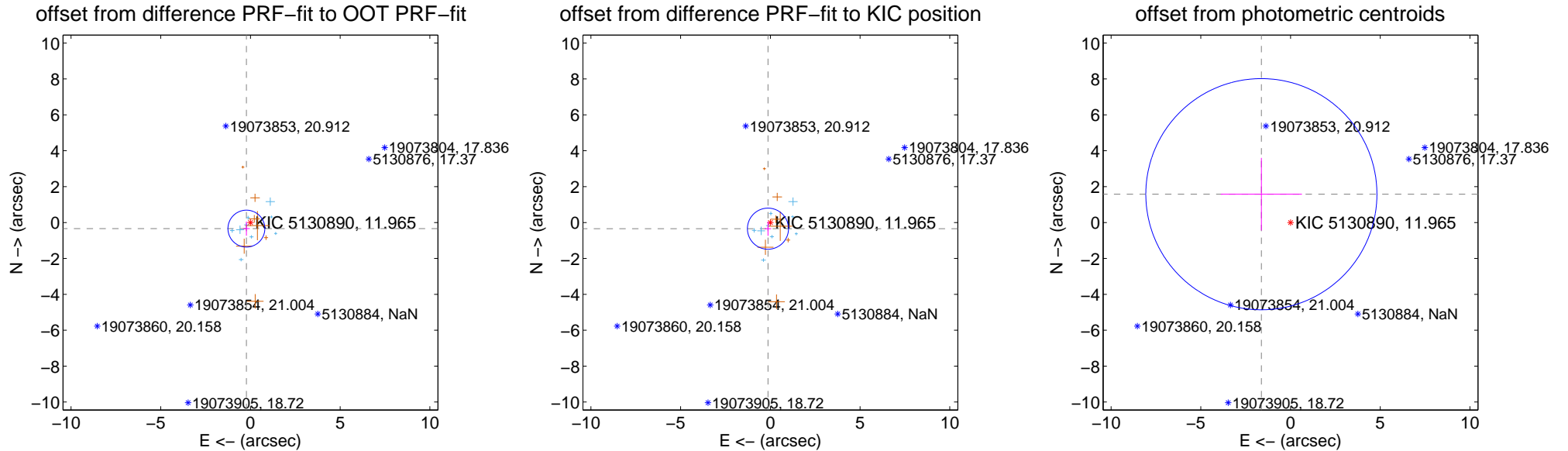
DV Centroid Data

Supplemental centroid analysis for 005130890-01. **Kepler magnitude: 11.96.** Transit SNR 5.90

There are 9 quarters with good PRF difference image offsets

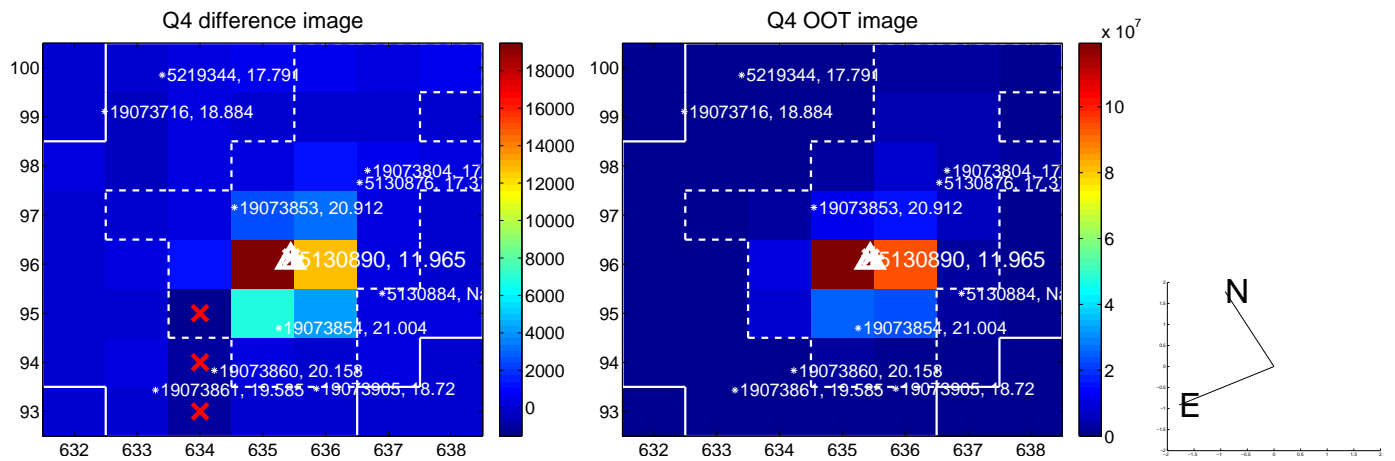
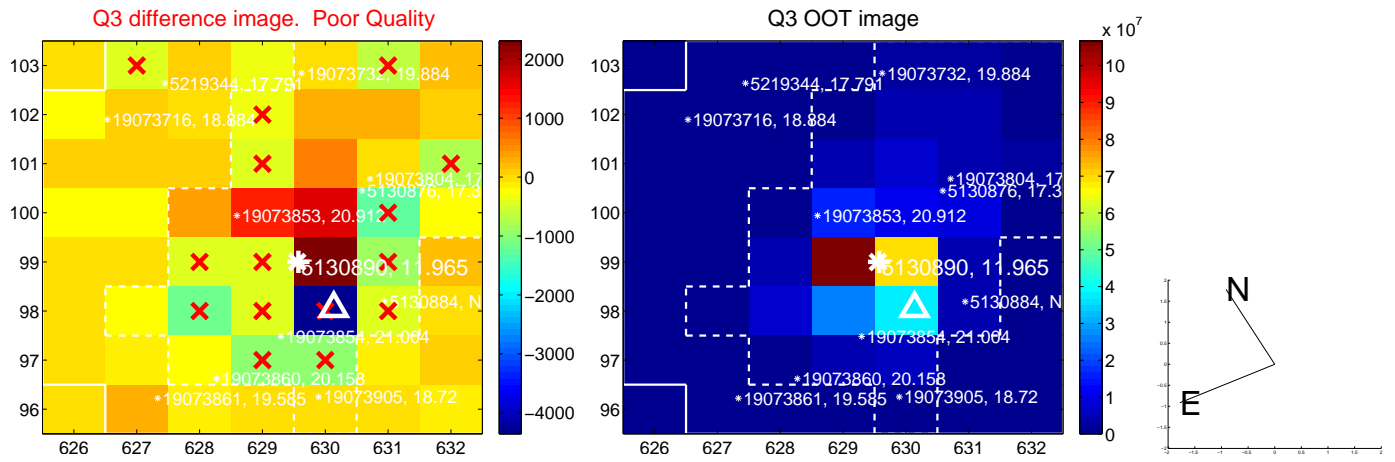
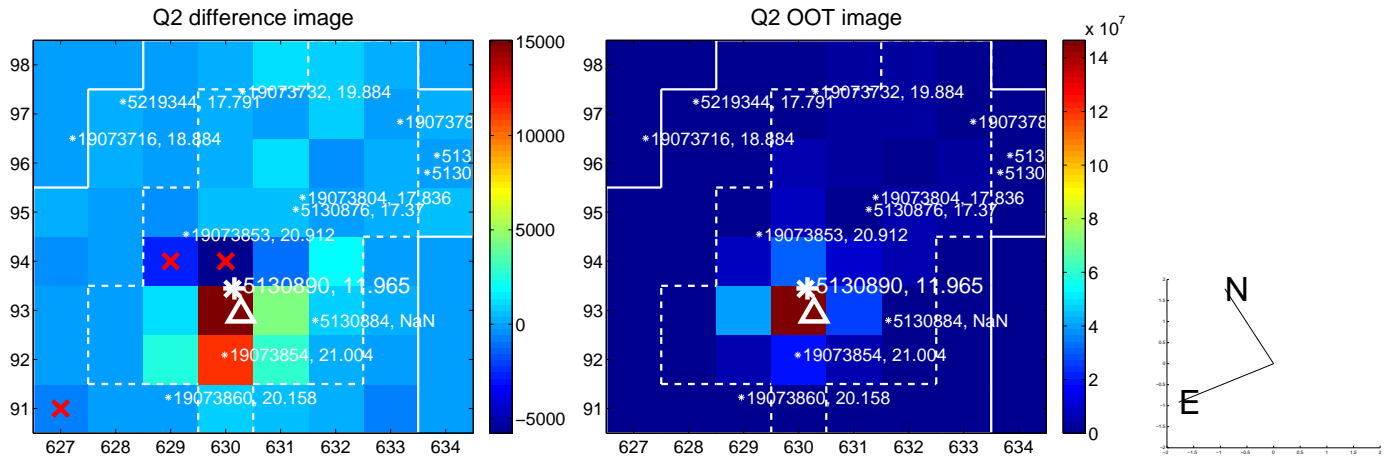
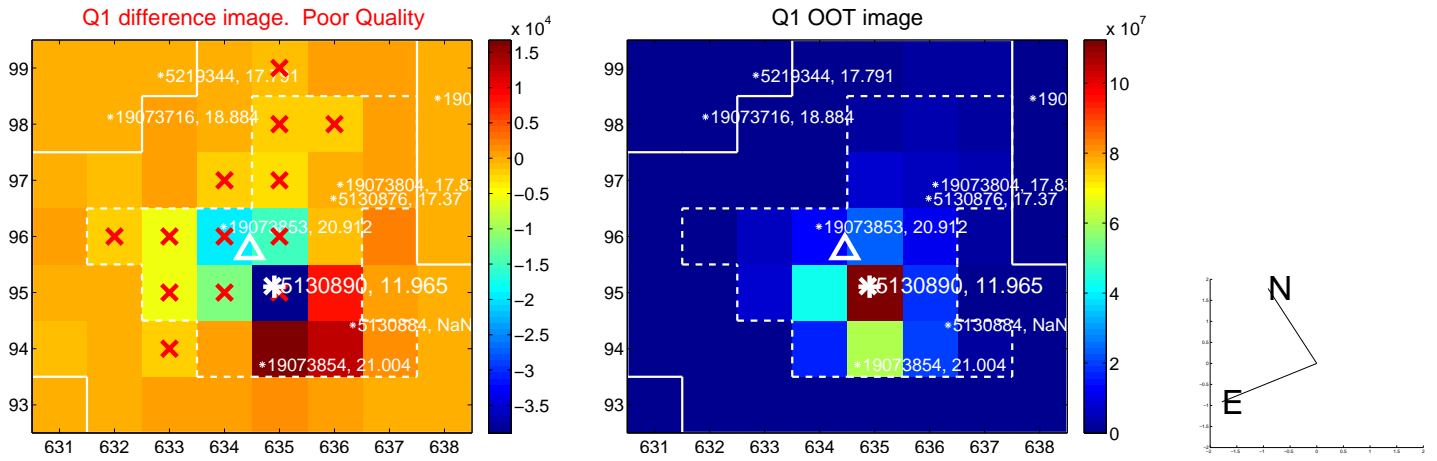
The direct PRF centroid is offset from the target star catalog position by about 0.18 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.407 ± 0.343	1.19	0.226 ± 0.189	-0.338 ± 0.394
PRF-fit source offset from KIC position	0.367 ± 0.382	0.96	0.132 ± 0.181	-0.343 ± 0.394
photometric centroid source offset	2.27 ± 2.15	1.06	1.62 ± 2.26	1.58 ± 2.02

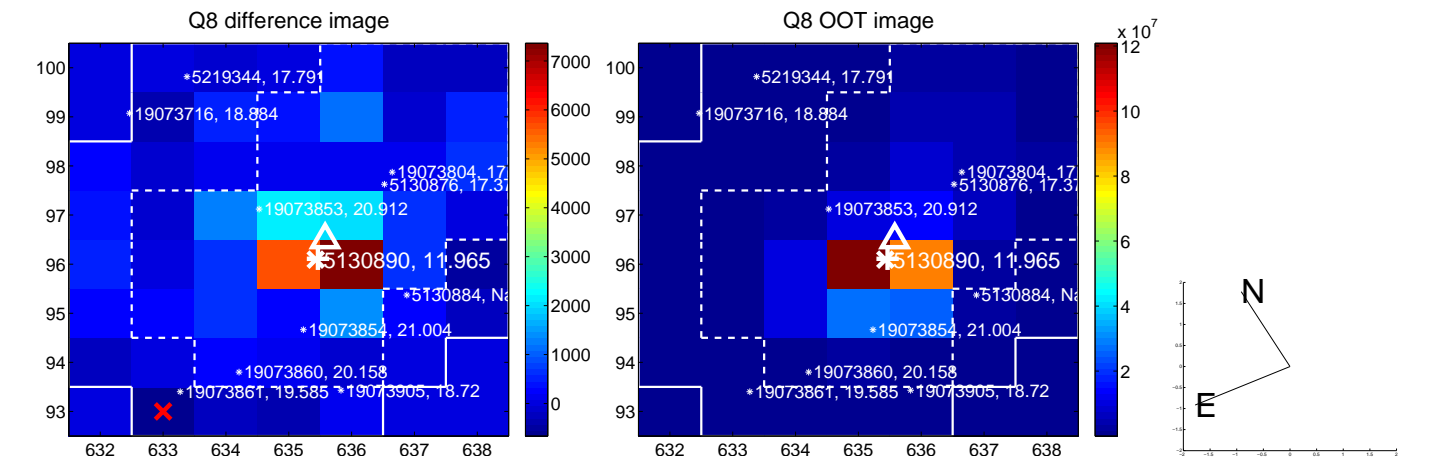
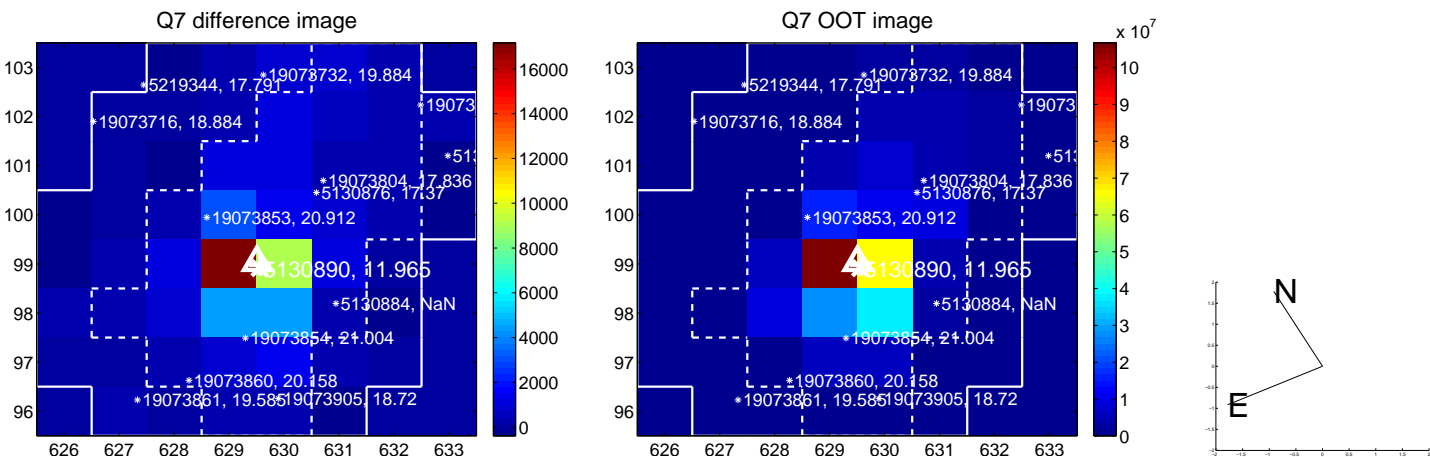
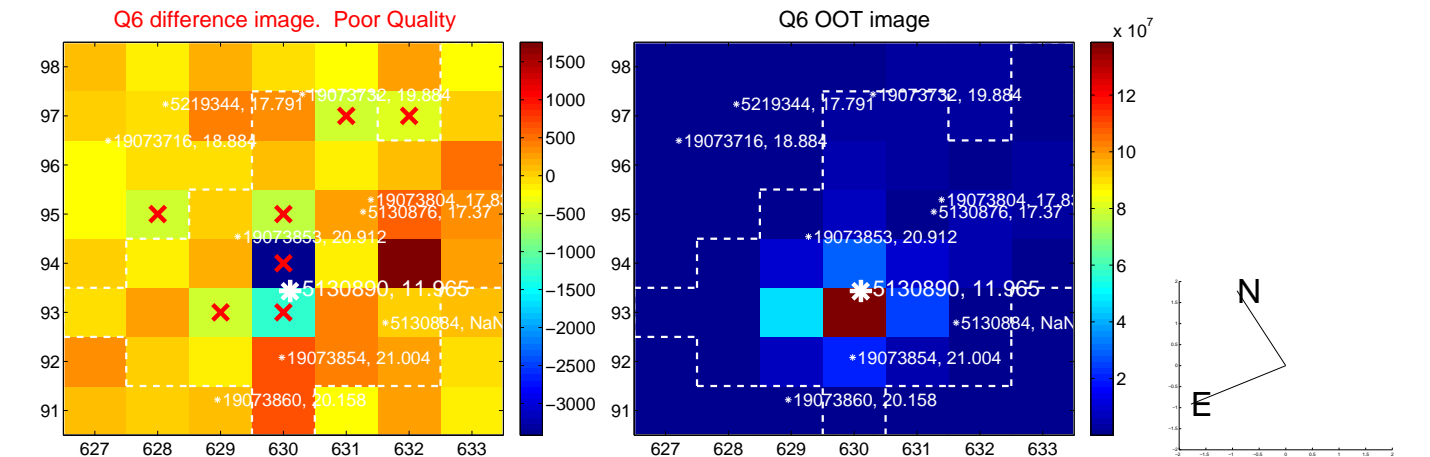
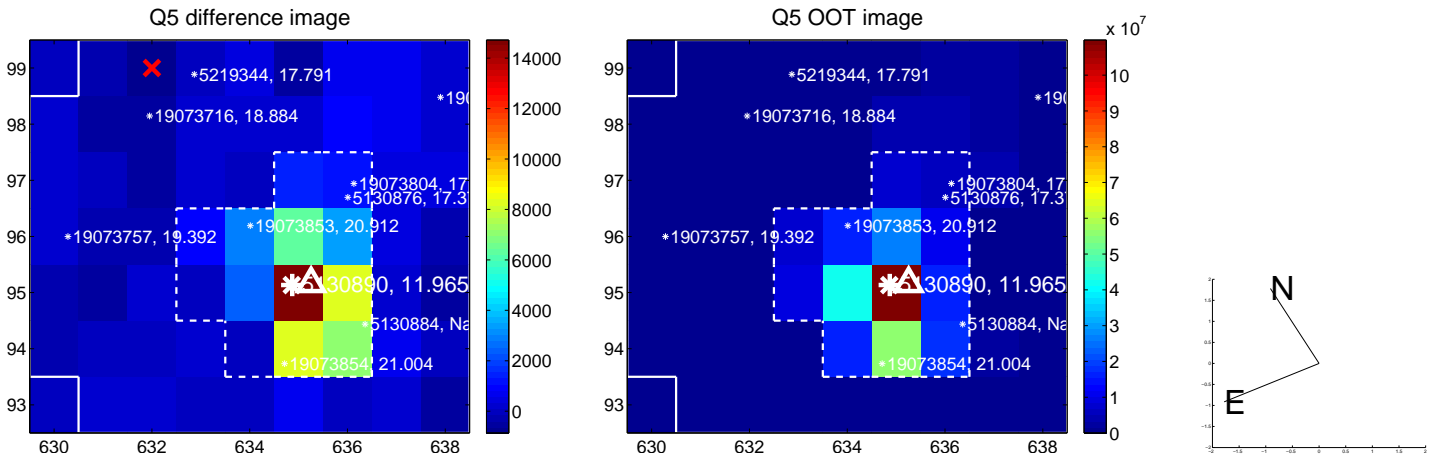


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

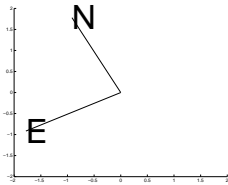
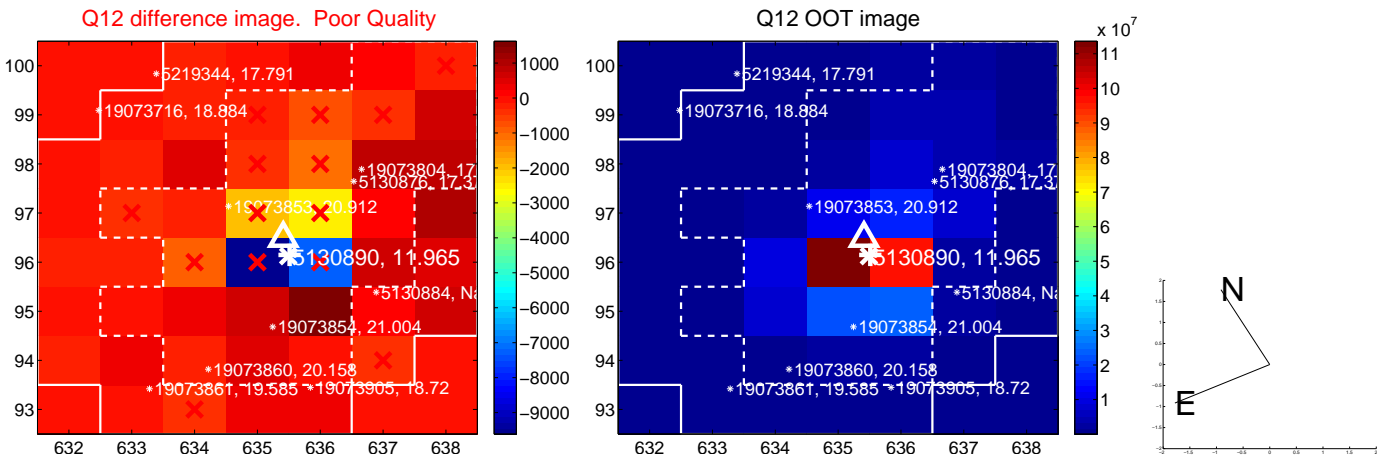
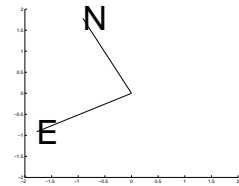
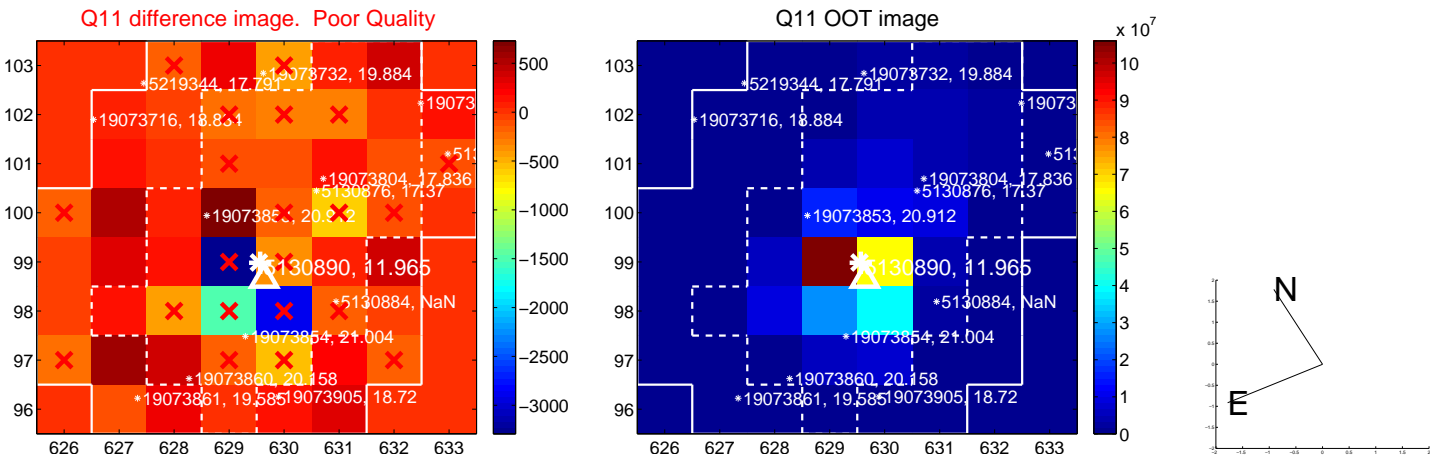
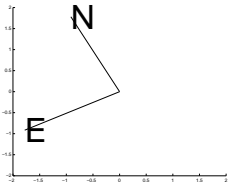
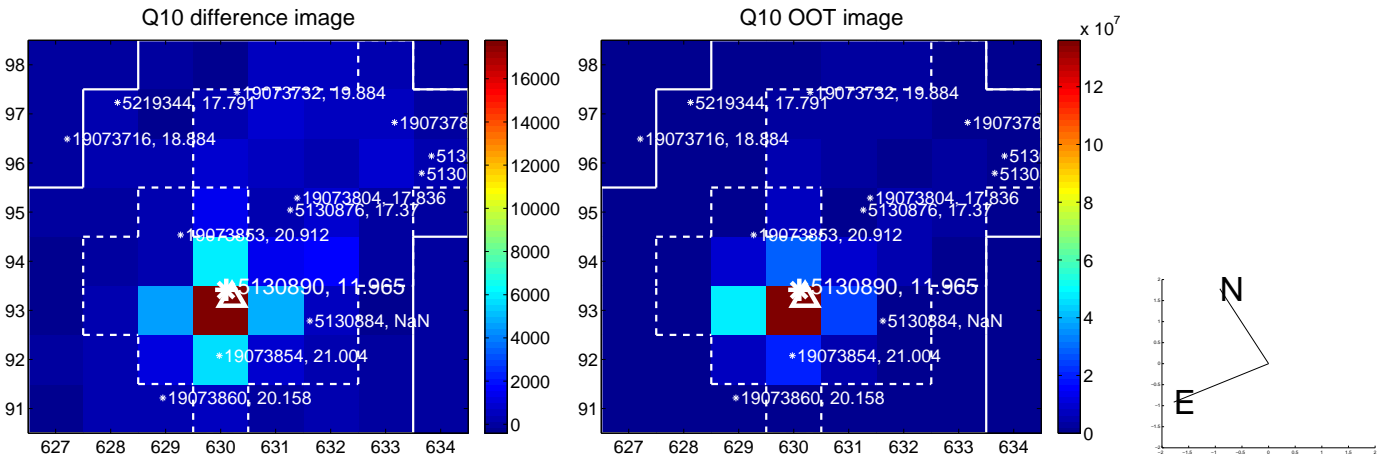
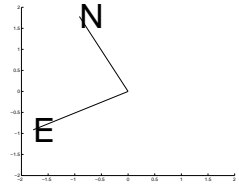
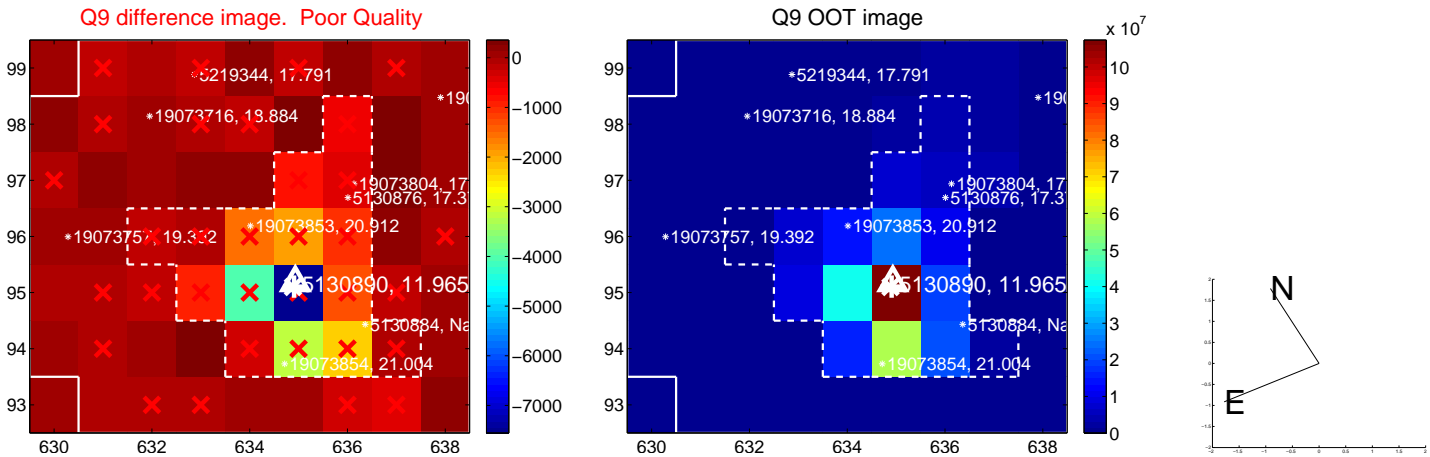
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



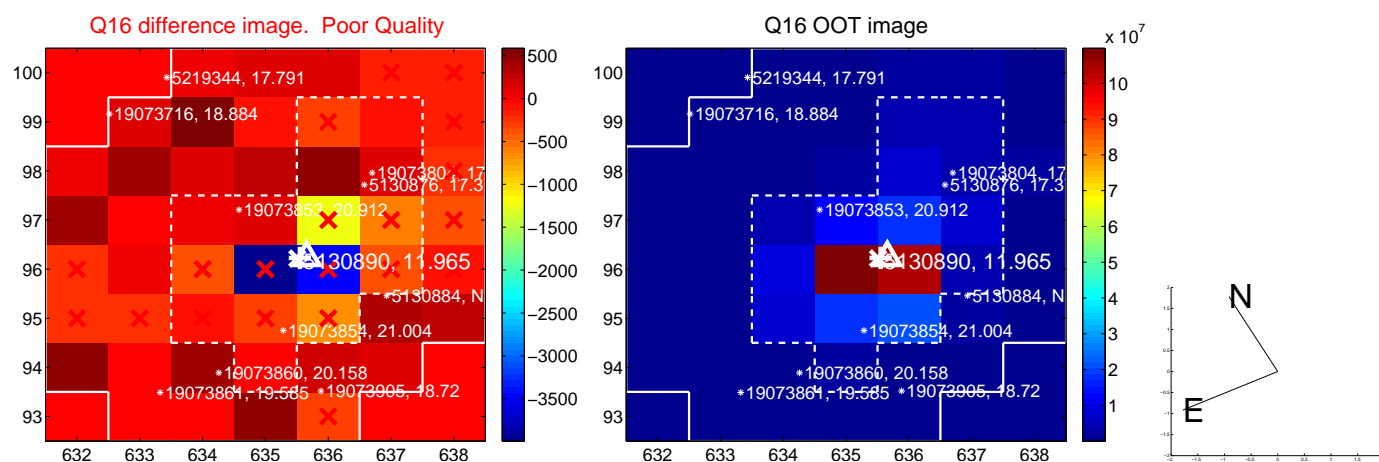
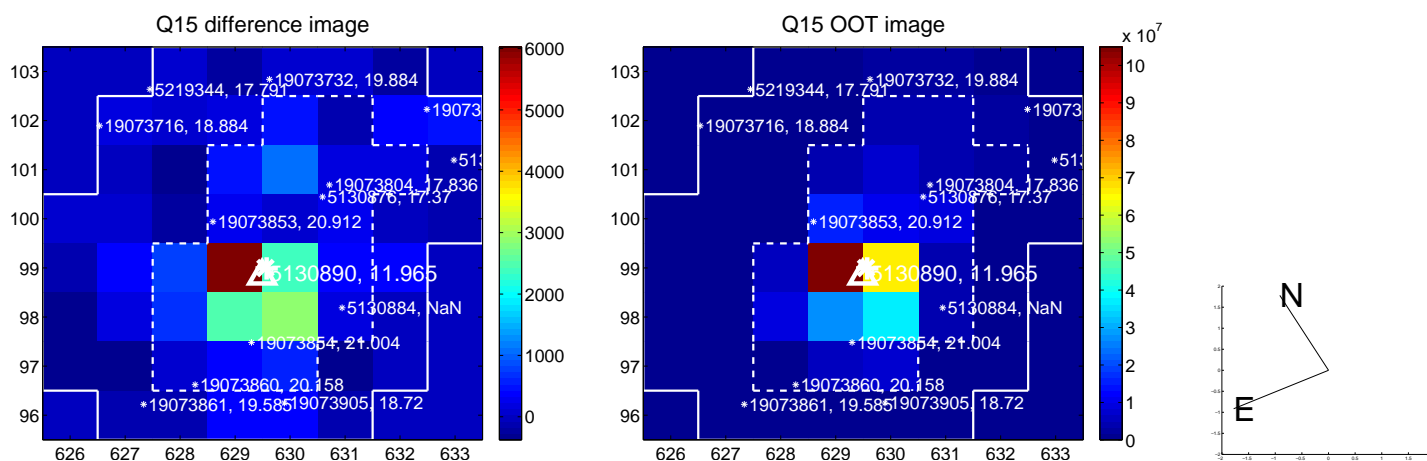
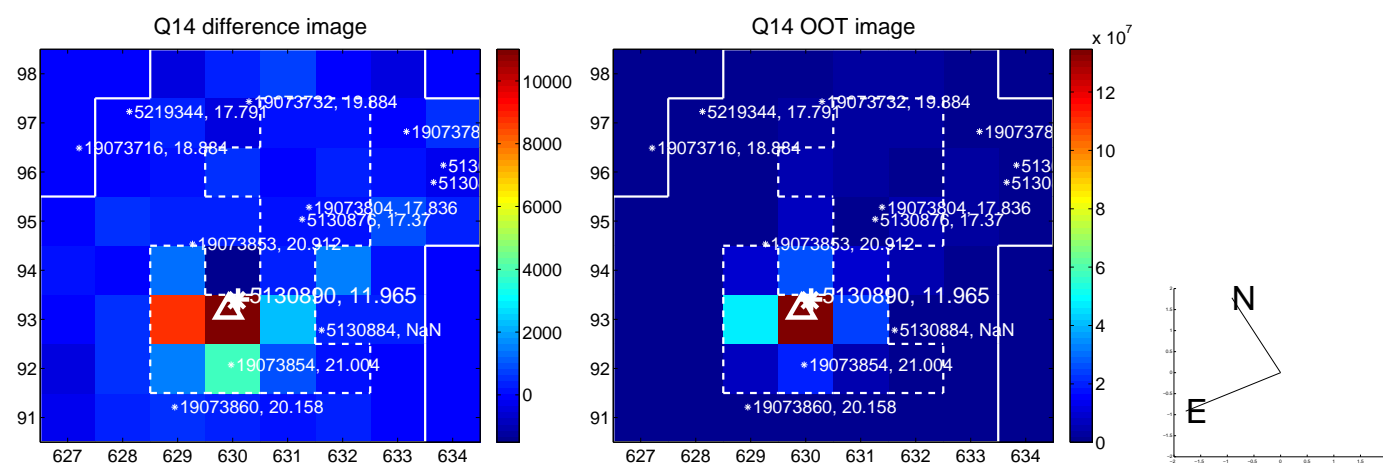
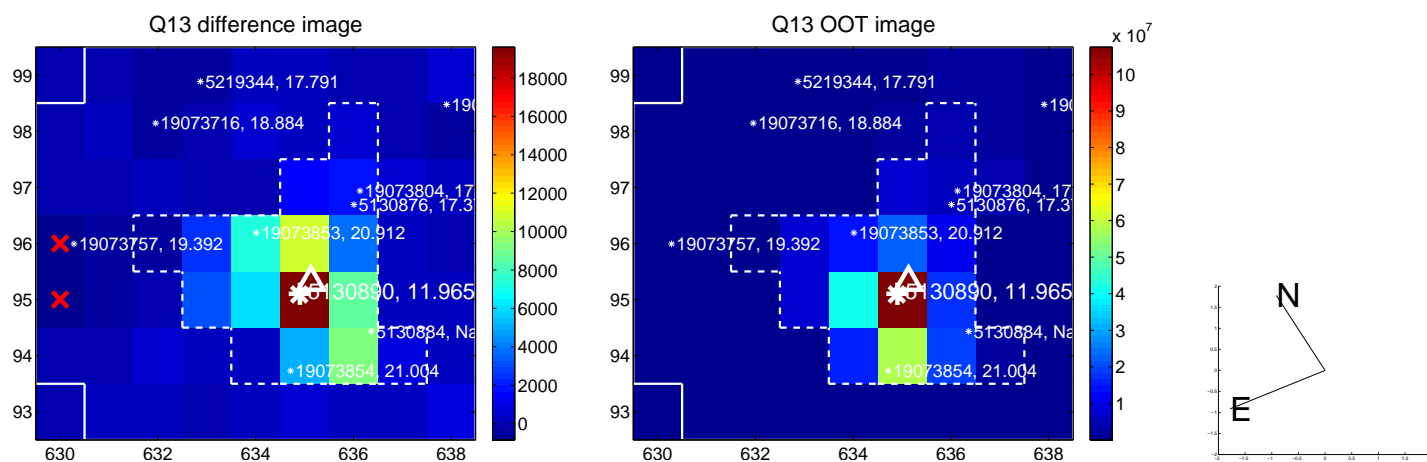
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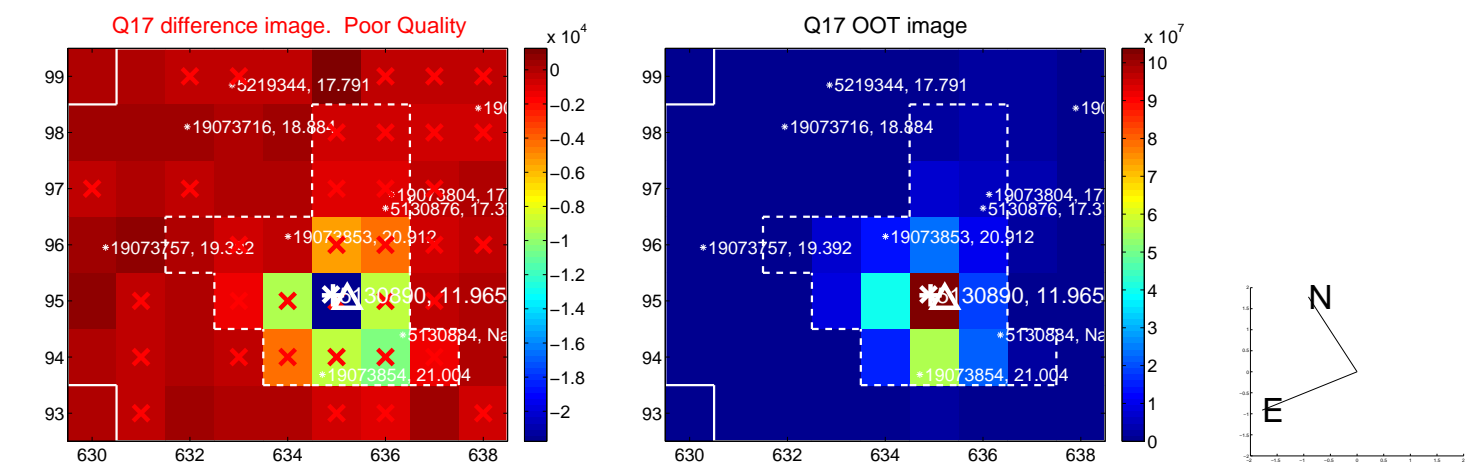
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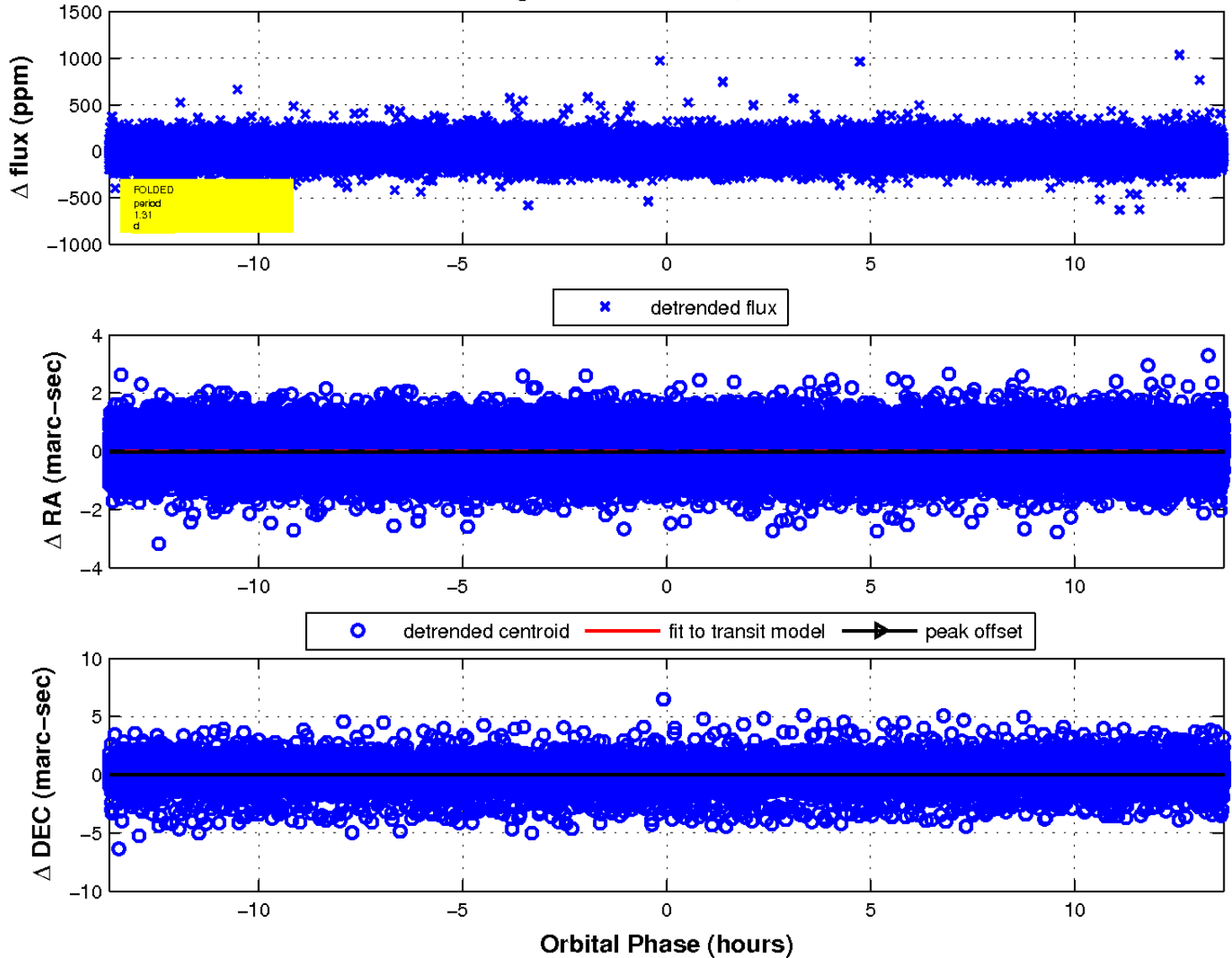
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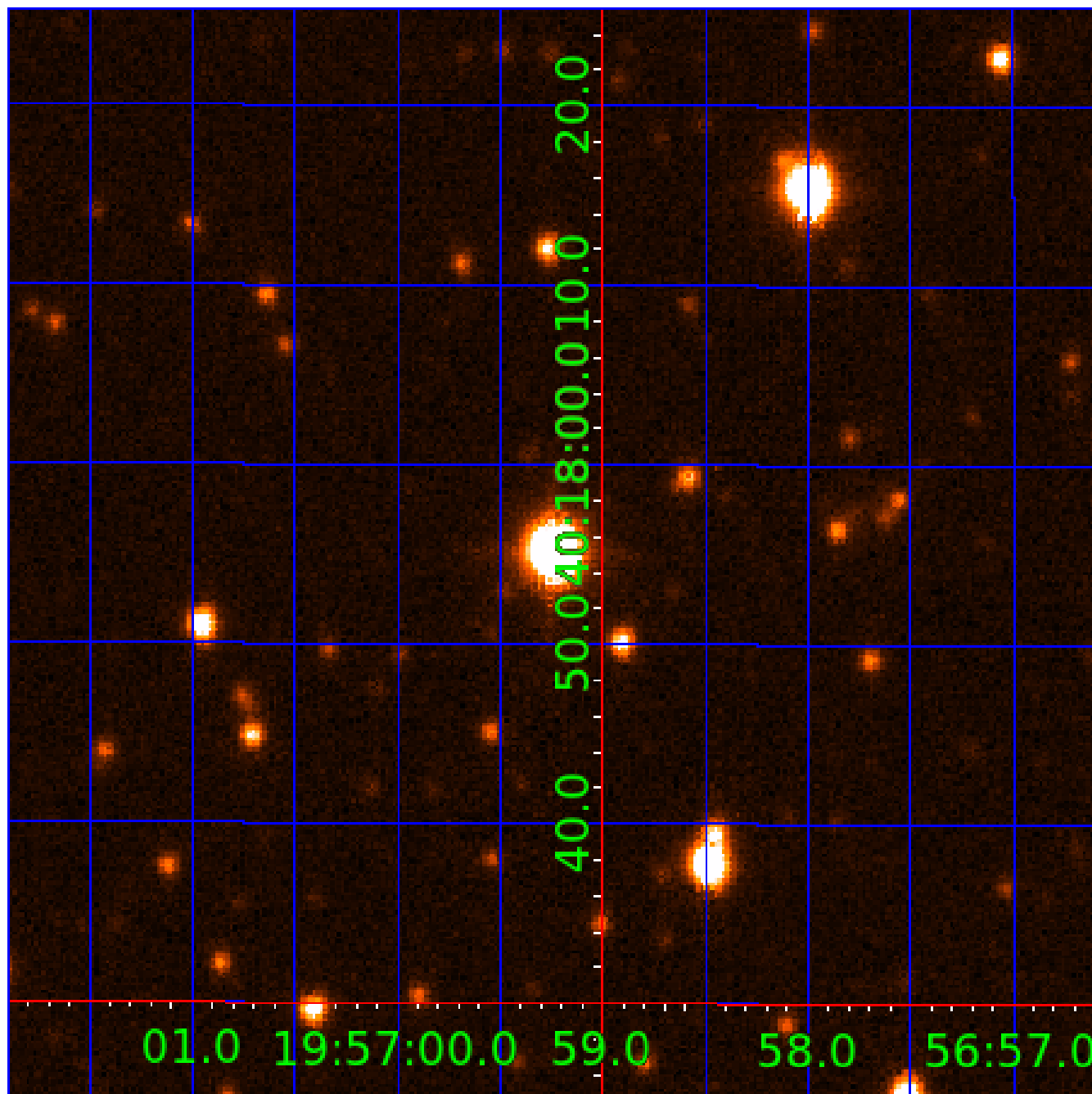


fluxWeightedCentroids, Planet 1 of 3



UKIRT Image

Declination



KIC 005130890

Q1-17 DR25 TCE Parameters

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005130890-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005130890-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS

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

Ephemeris Match Information For 005130890-02

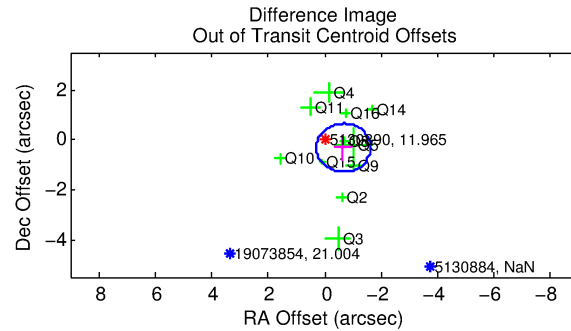
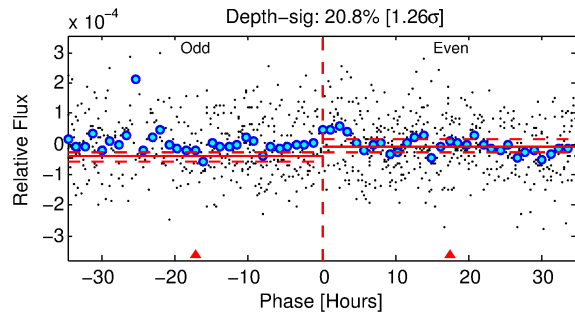
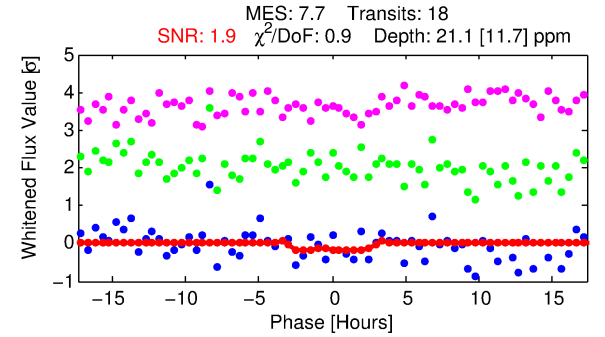
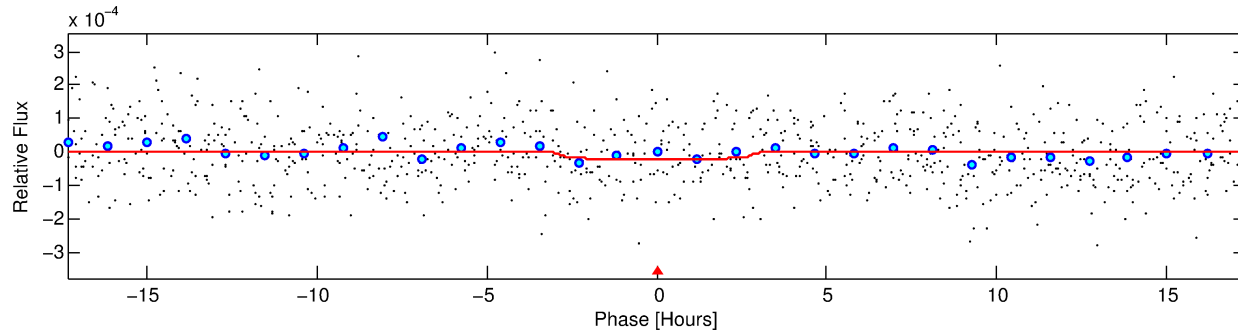
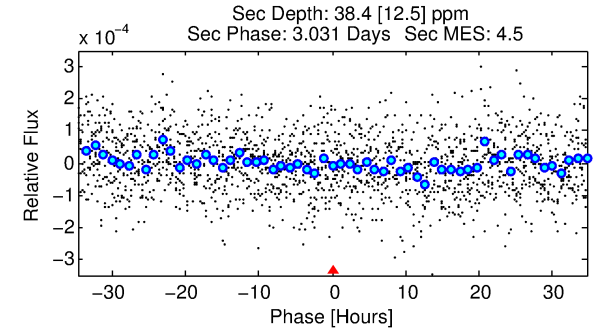
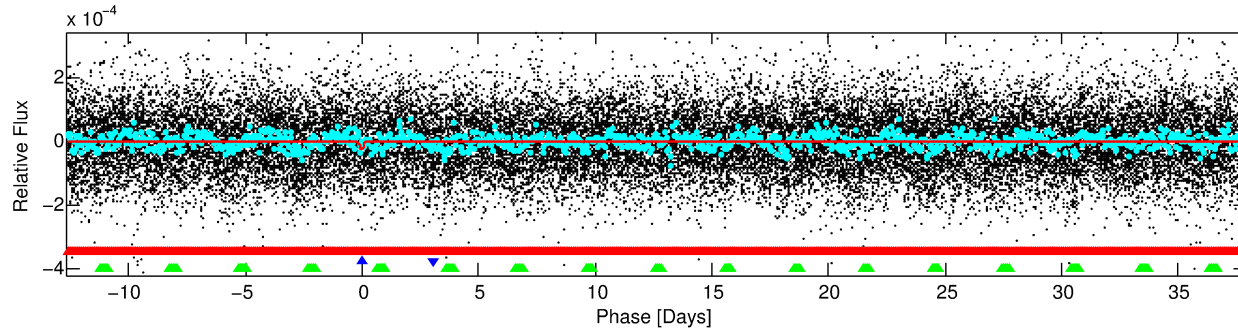
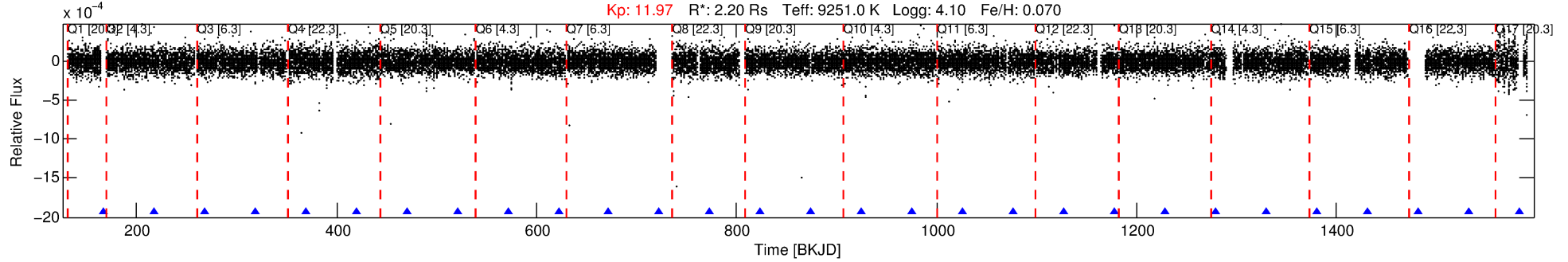
No Significant Match Found

DV One-Page Summary

KIC: 5130890 Candidate: 2 of 3 Period: 50.546 d

KOI: K06530 Corr: No Ephemeris Match

Kp: 11.97 R*: 2.20 Rs Teff: 9251.0 K Logg: 4.10 Fe/H: 0.070



DV Fit Results:

Period = 50.54639 [0.00247] d
Epoch = 166.9127 [0.0433] BKJD
Rp/R* = 0.0047 [0.0030]
a/R* = 39.61 [161.87]
b = 0.81 [1.74]
Seff = 261.06 [121.27]
Teq = 1025 [119] K
Rp = 1.12 [0.85] Re
a = 0.3493 [0.1110] AU
Ag = 2061.49 [2871.74] [0.72σ]
Teffp = 10678 [3580] K [2.69σ]

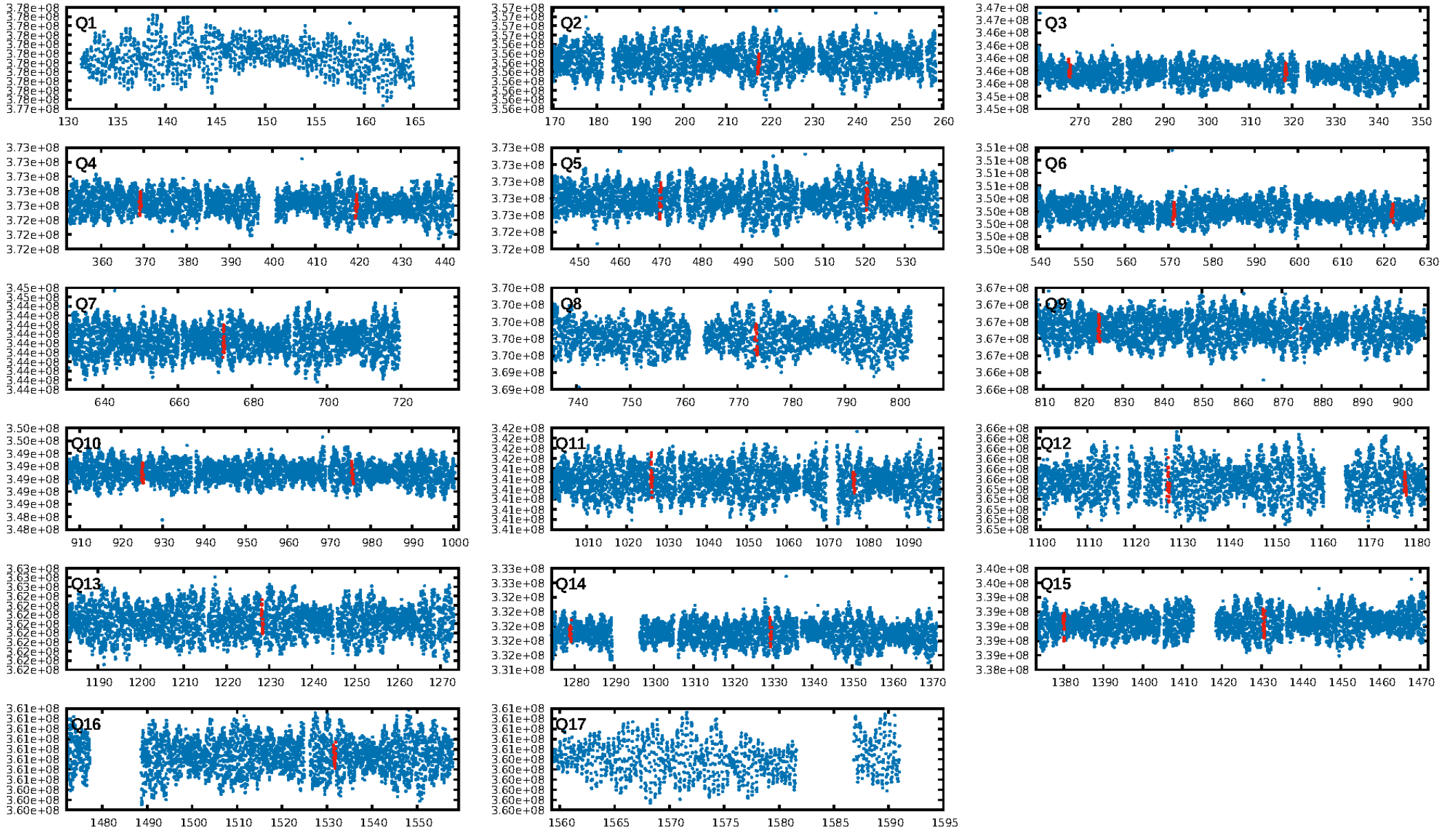
DV Diagnostic Results:

ShortPeriod-sig: 100.0% [39.89σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: 77.7%
ModelChiSquareGof-sig: 100.0%
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [18/18]
GhostDiagnostic-chr: 1.529
Centroid-sig: 6.7%
Centroid-so: 6.075 arcsec [1.25σ]
OotOffset-rm: 0.733 arcsec [2.27σ]
KicOffset-rm: 0.868 arcsec [2.79σ]
OotOffset-st: 3/3/3/2 [11]
KicOffset-st: 3/3/3/2 [11]
DiffImageQuality-fgm: 0.36 [4/11]
DiffImageOverlap-fno: 0.00 [0/13]

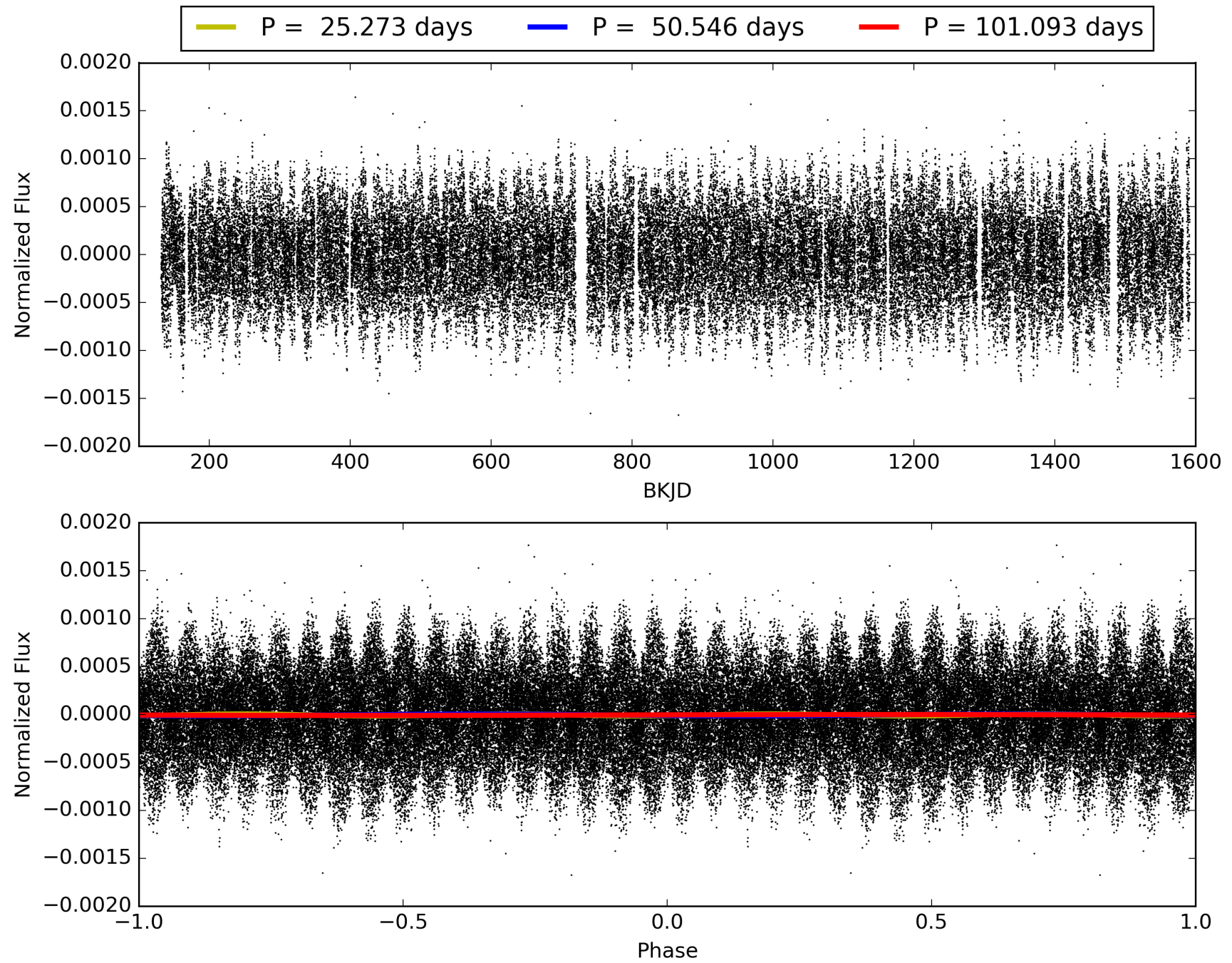
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 19:23:35 Z

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

TCE 005130890-02, PDC Light Curves

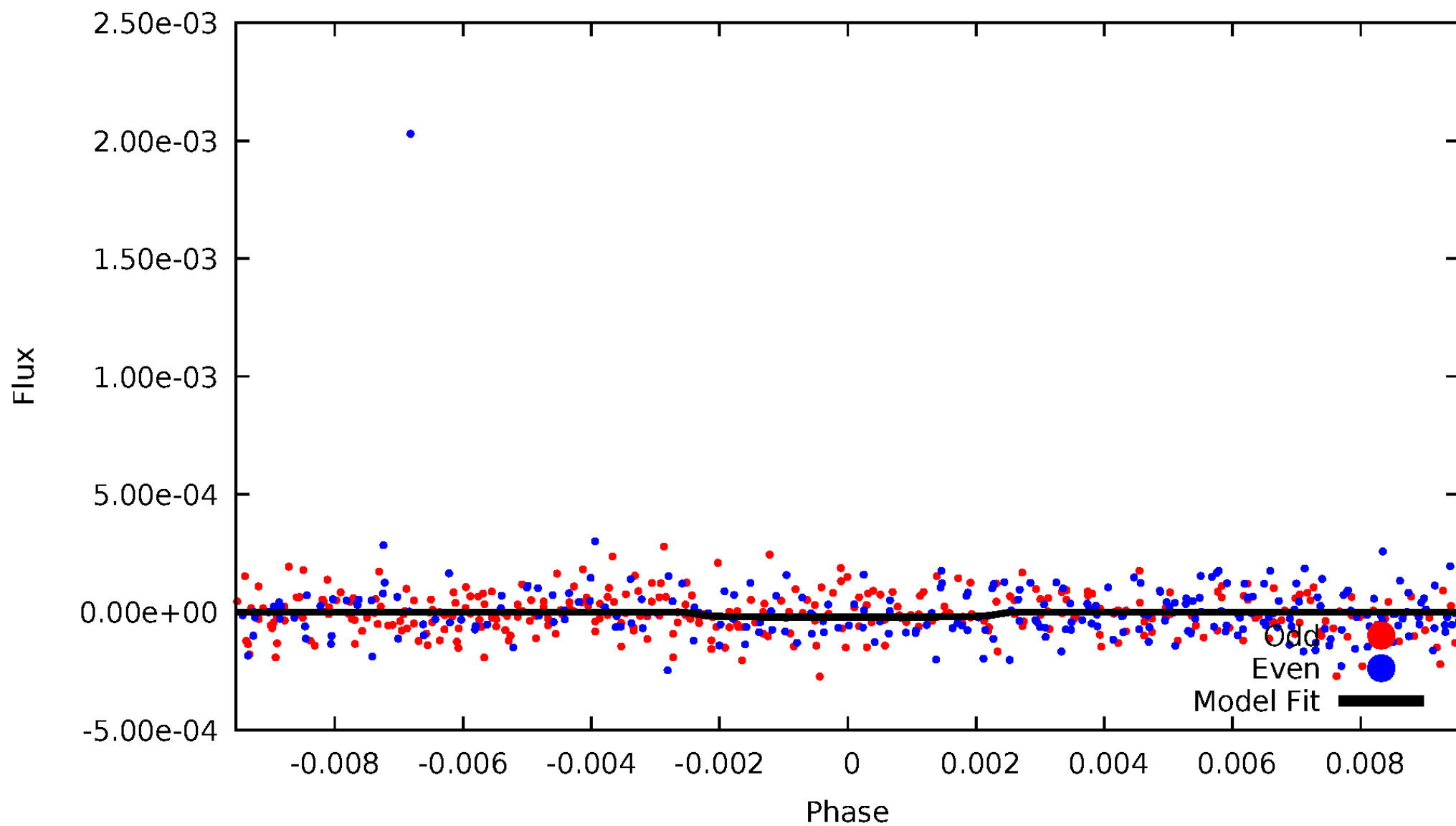


TCE 005130890-02



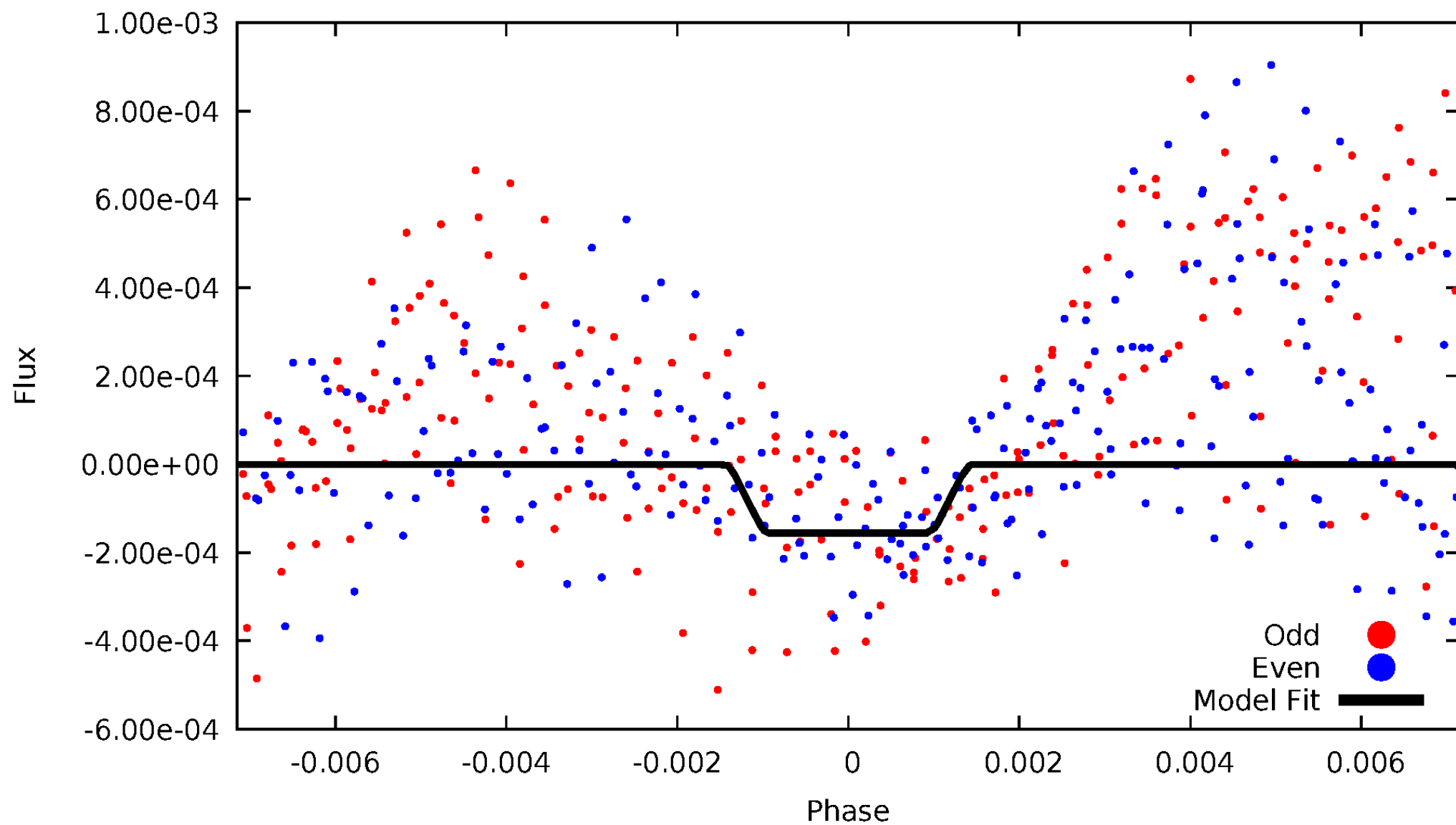
DV Odd/Even

TCE 005130890-02



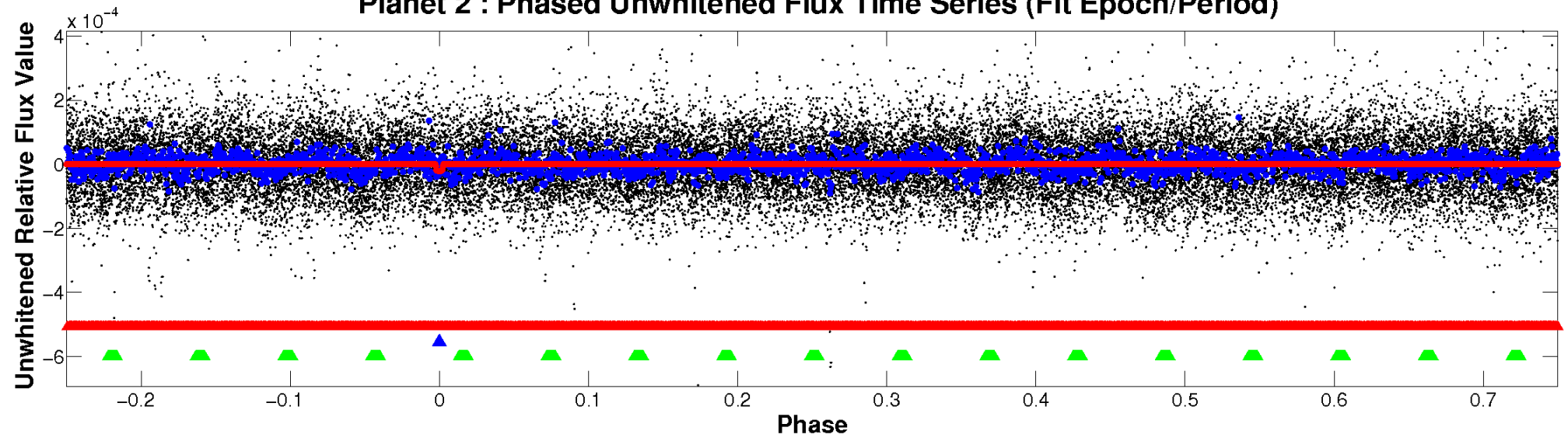
ALT Odd/Even

TCE 005130890-02

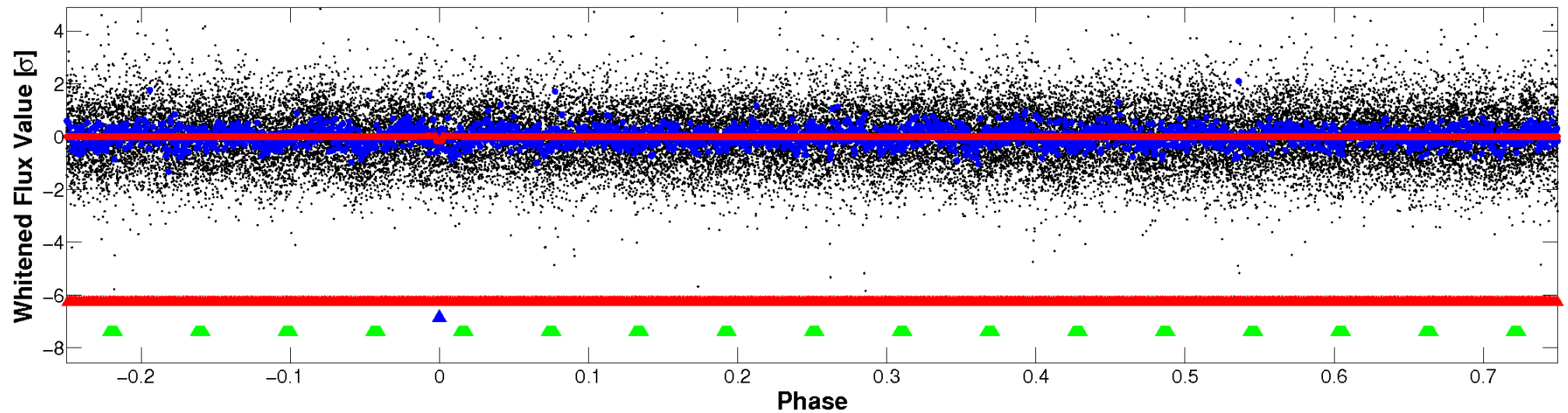


Non-Whitened Vs. Whitened Light Curve

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

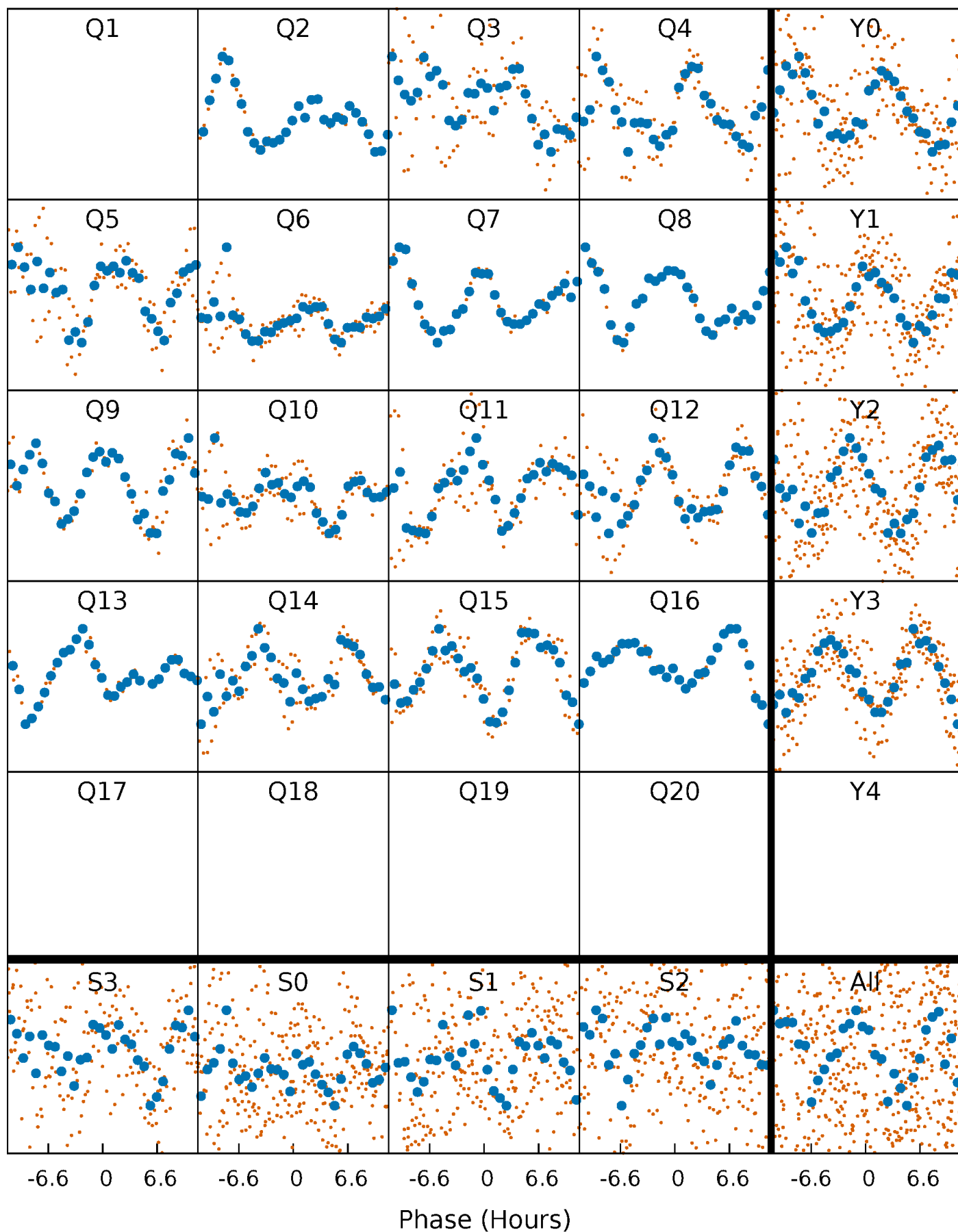


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



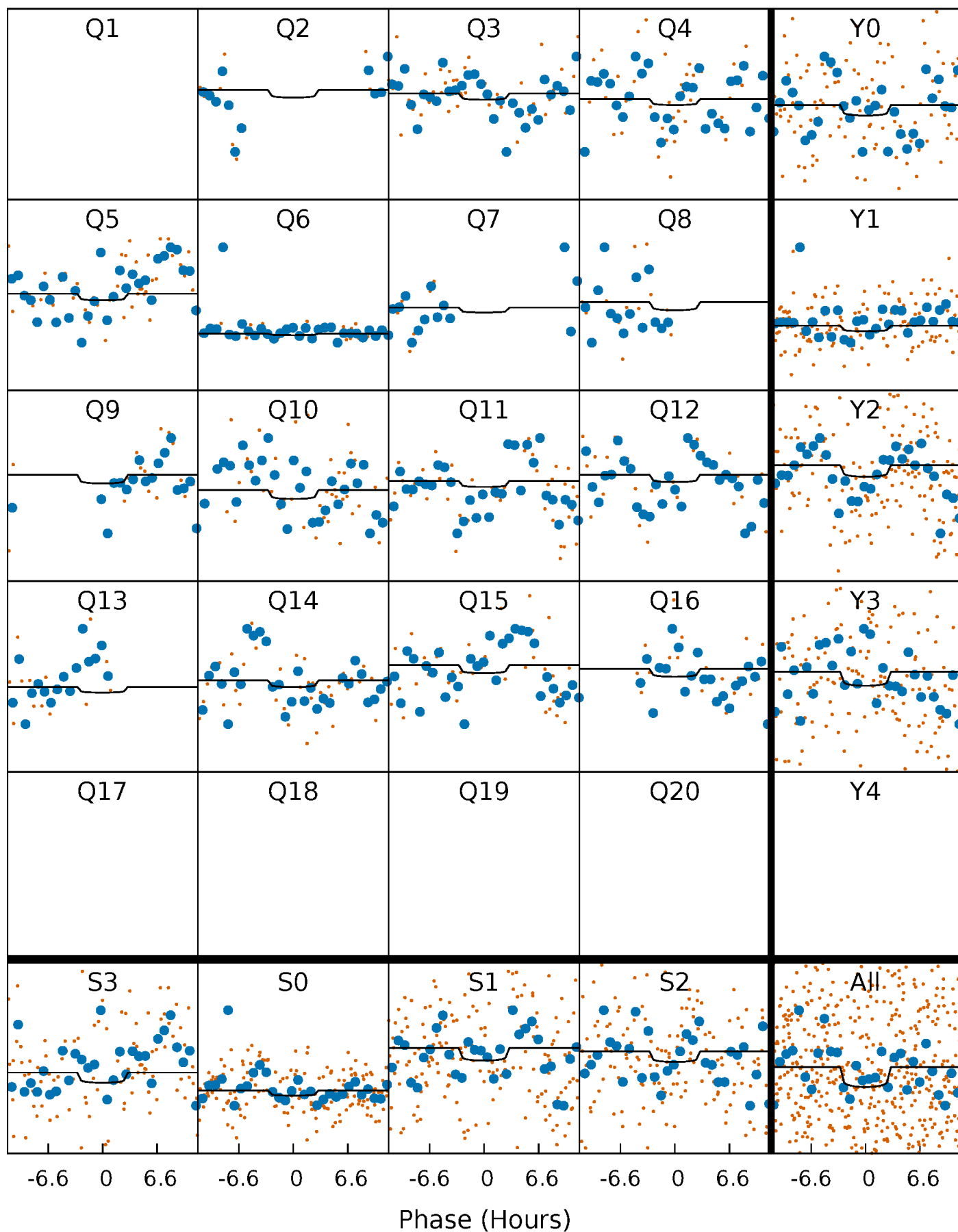
PDC Quarter-Phased Transit Curves

TCE 005130890-02 P= 50.546394 Days $T_0=166.912675$ (BKJD)



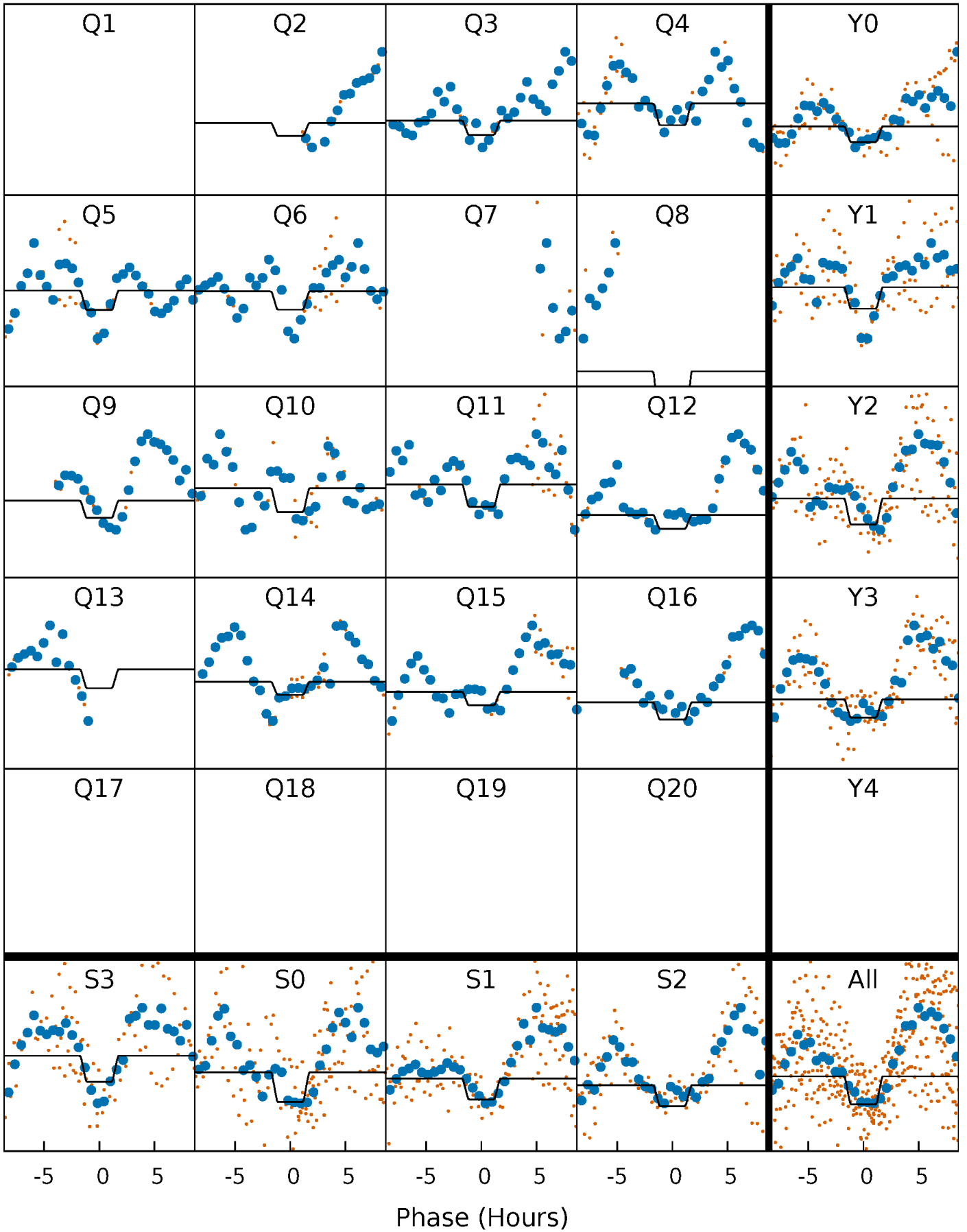
DV Quarter-Phased Transit Curves

TCE 005130890-02 P= 50.546394 Days $T_0=166.912675$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

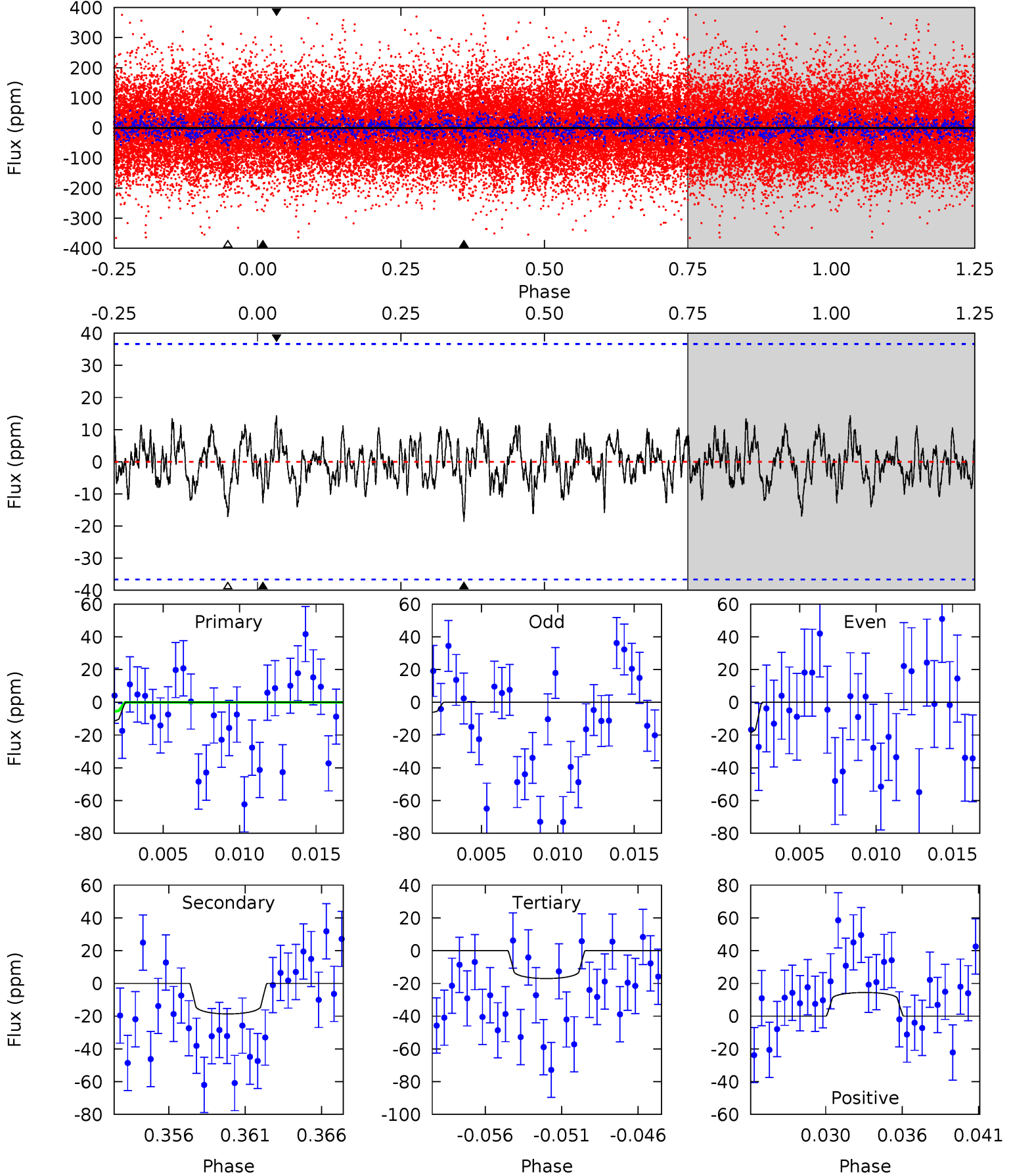
TCE 005130890-02 P= 50.534180 Days $T_0=167.245987$ (BKJD)



DV Model-Shift Uniqueness Test

005130890-02, P = 50.546394 Days, E = 116.366281 Days

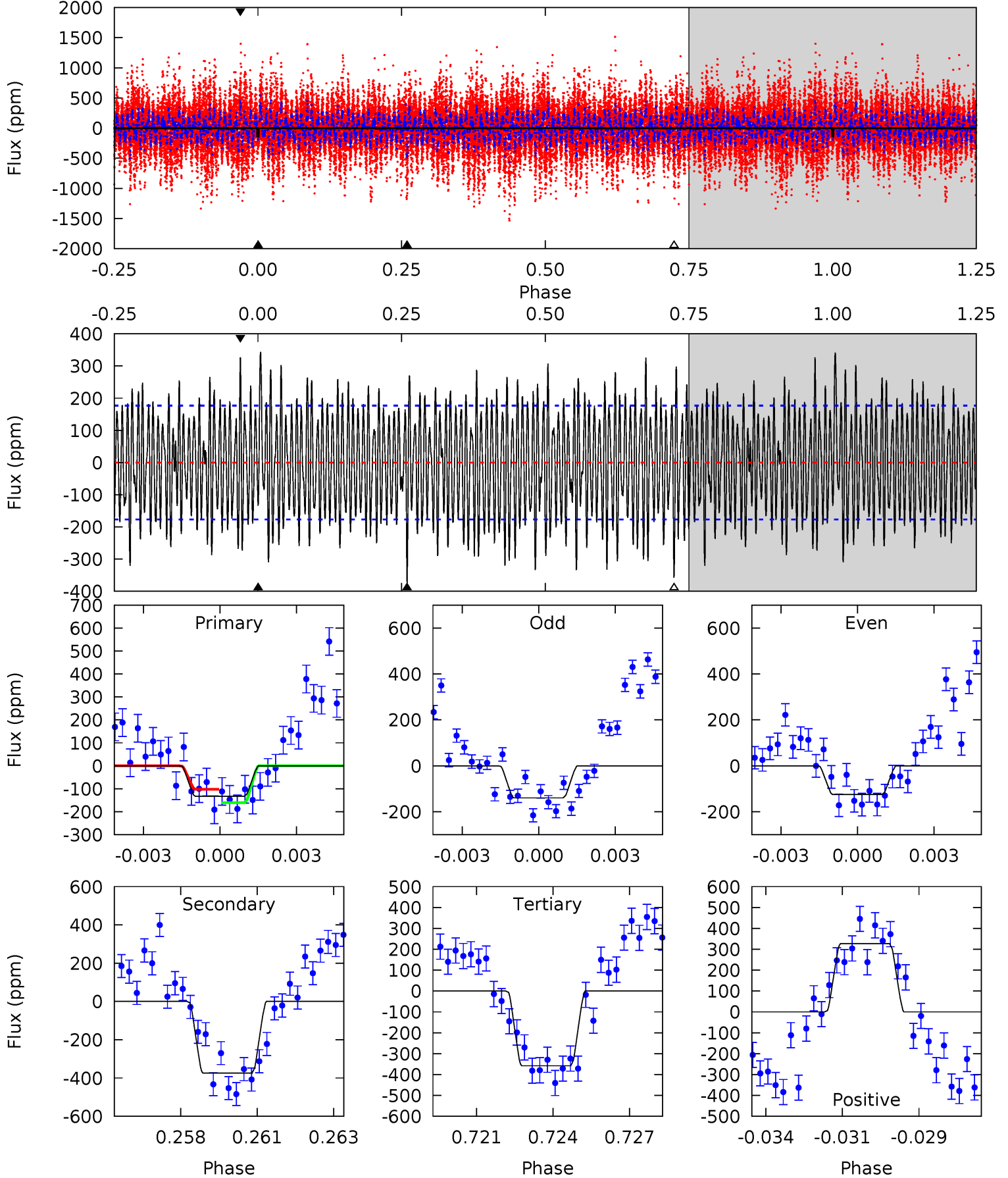
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1.81	2.62	2.40	2.03	5.15	2.80	0.77	-0.58	-0.22	0.23	0.59	0.98	1.36	0.44	0.91



Alt Model-Shift Uniqueness Test

005130890-02, P = 50.534180 Days, E = 116.711807 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
3.93	11.1	10.6	9.72	5.26	2.98	4.27	-6.71	-5.79	0.50	1.43	0.22	1.06	0.48	0.88



Stellar Parameters For KIC 005130890

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	9251^{+259}_{-444}	$4.099^{+0.123}_{-0.210}$	$0.070^{+0.150}_{-0.650}$	$2.203^{+0.905}_{-0.487}$	$2.222^{+0.386}_{-0.579}$	$0.293^{+0.218}_{-0.167}$
	+3%/-5%	+3%/-5%	+214%/-929%	+41%/-22%	+17%/-26%	+75%/-57%
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 005130890-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-19 ± 7	$1.20^{+0.82}_{-0.65}$	1443^{+129}_{-101}	8256^{+7618}_{-2195}	775^{+3437}_{-517}
Alt.	-375 ± 34	$3.03^{+0.97}_{-0.85}$	1442^{+118}_{-95}	12974^{+4017}_{-2223}	2658^{+2247}_{-1081}

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 $A_{obs} \gg 1.0$

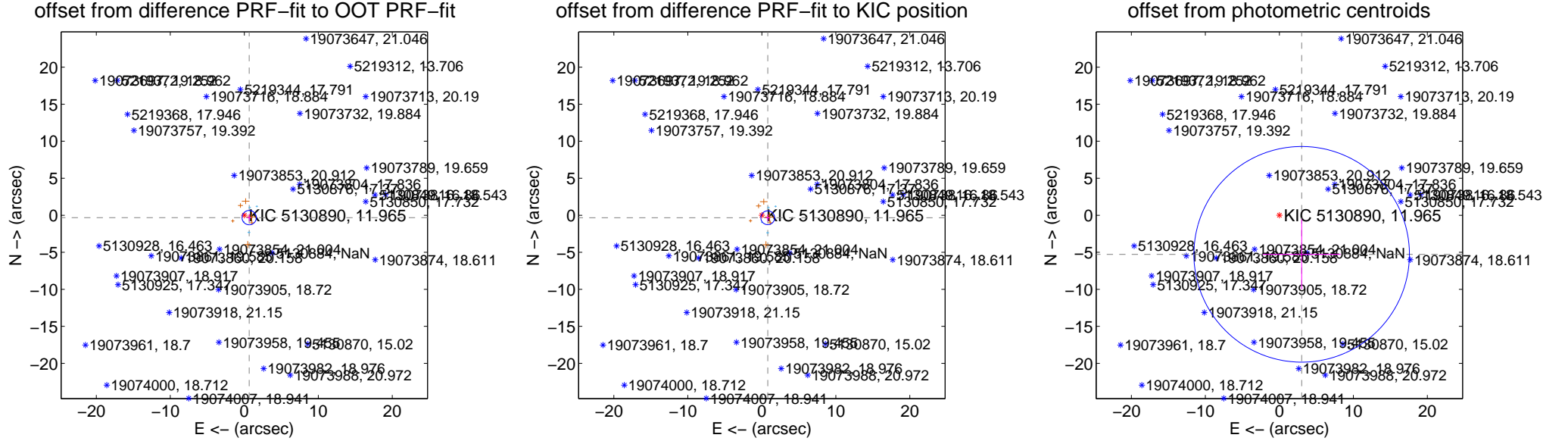
DV Centroid Data

Supplemental centroid analysis for 005130890-02. **Kepler magnitude: 11.96.** Transit SNR 1.87

There are 4 quarters with good PRF difference image offsets

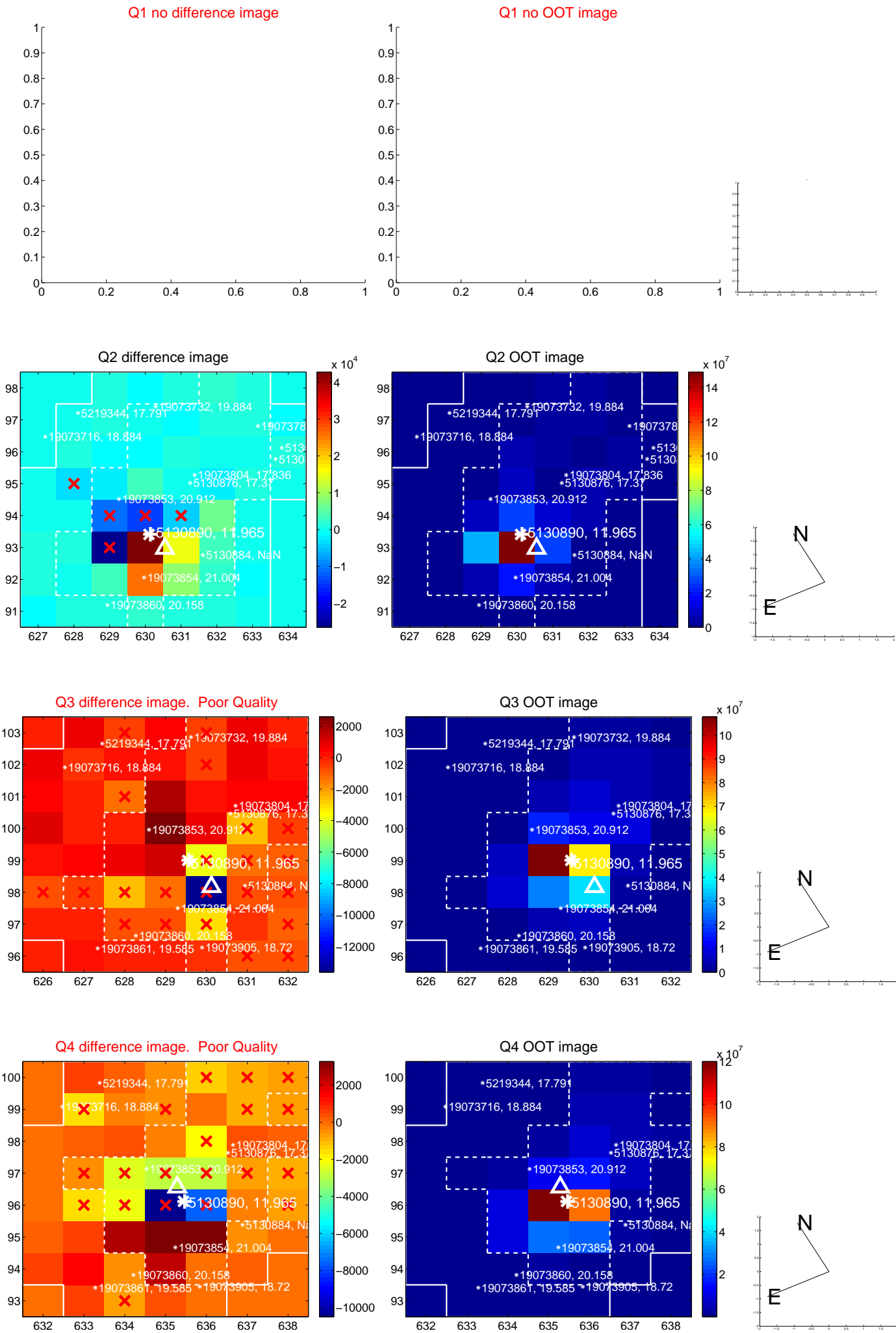
The direct PRF centroid is offset from the target star catalog position by about 0.16 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.733 ± 0.323	2.27	-0.661 ± 0.273	-0.317 ± 0.504
PRF-fit source offset from KIC position	0.868 ± 0.312	2.79	-0.801 ± 0.273	-0.336 ± 0.482
photometric centroid source offset	6.08 ± 4.85	1.25	-3.01 ± 5.26	-5.28 ± 4.71

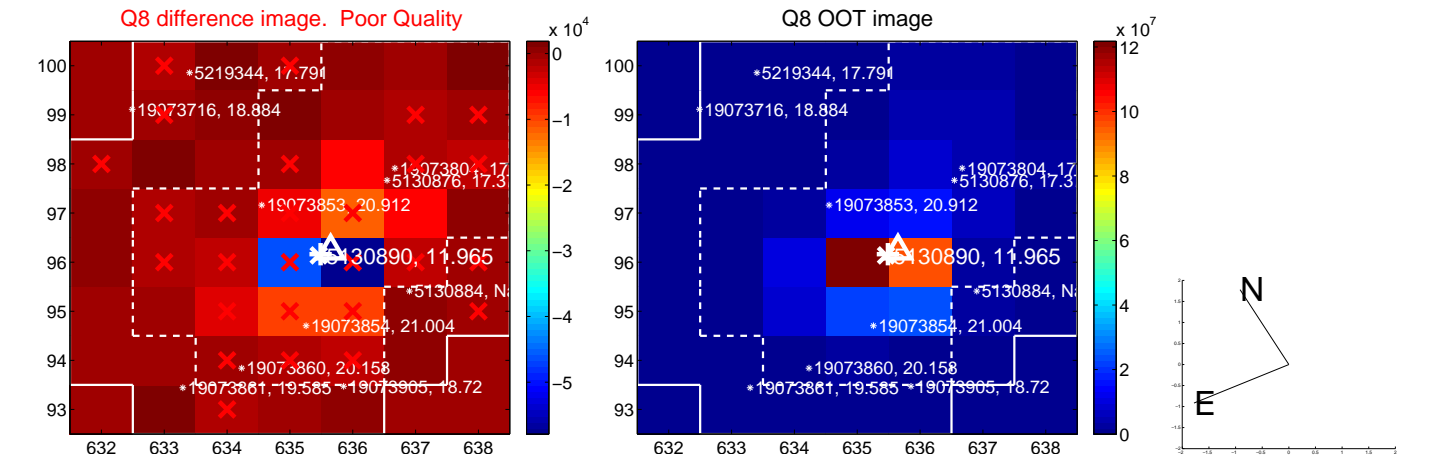
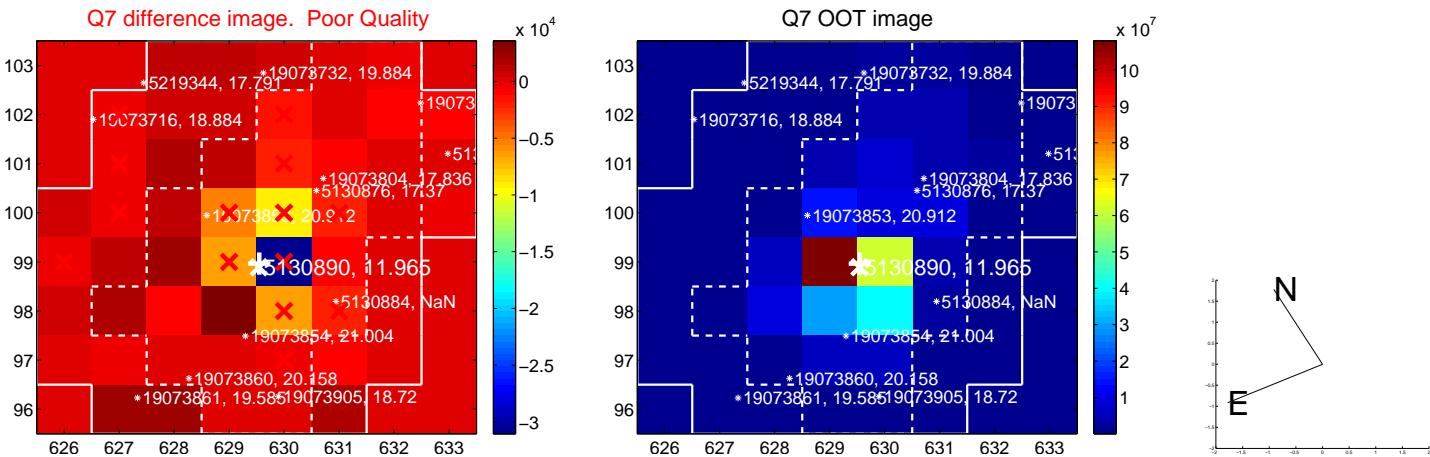
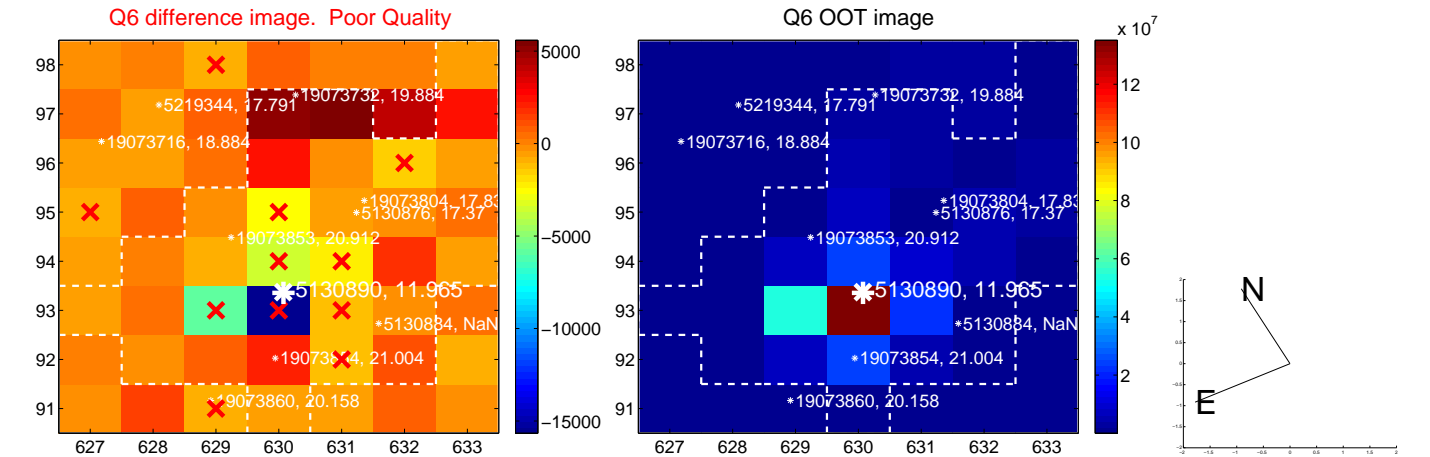
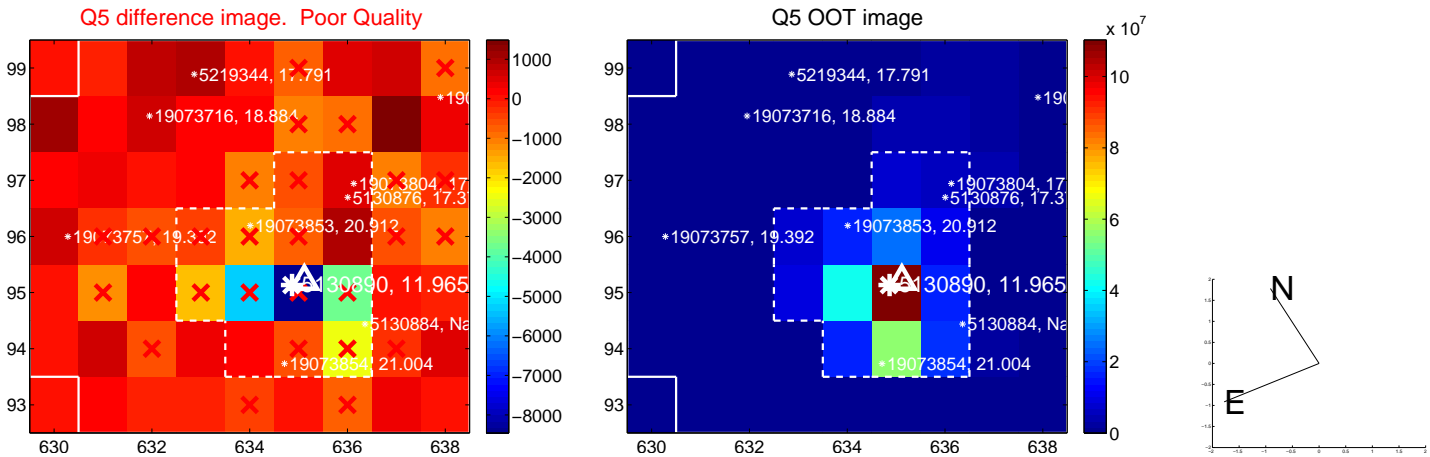


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

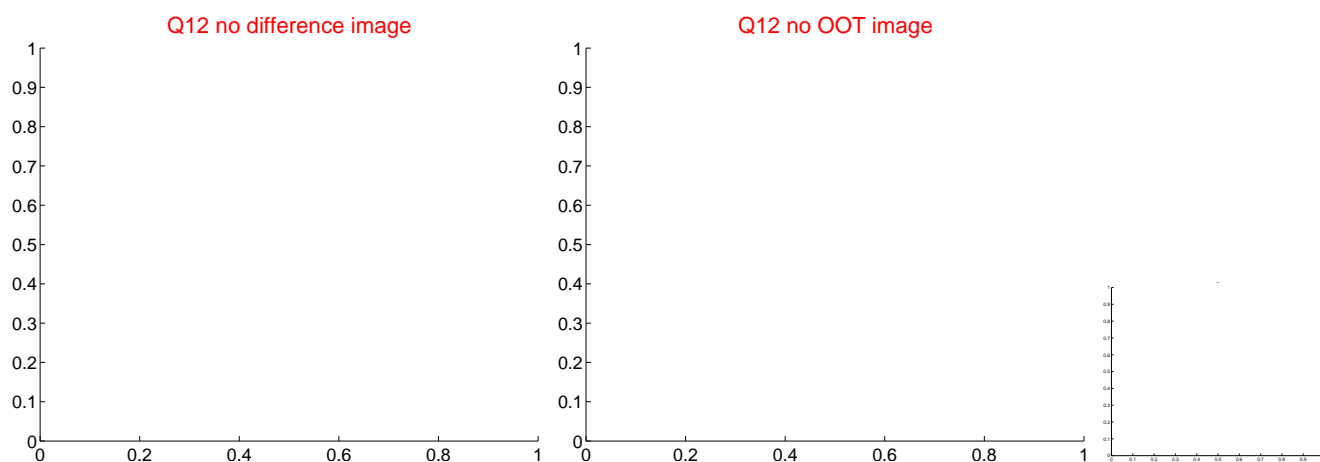
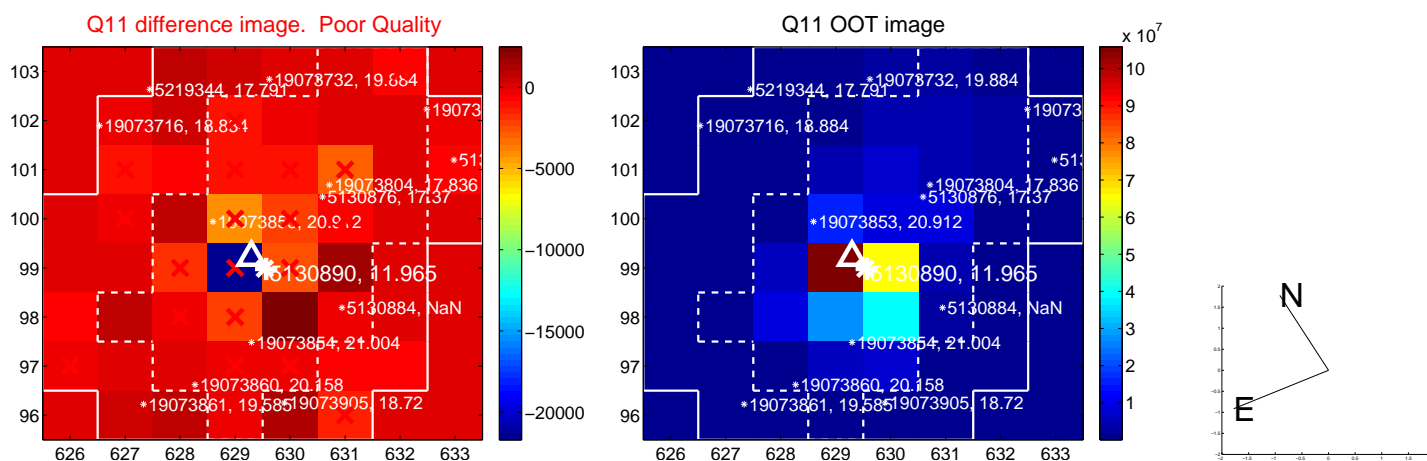
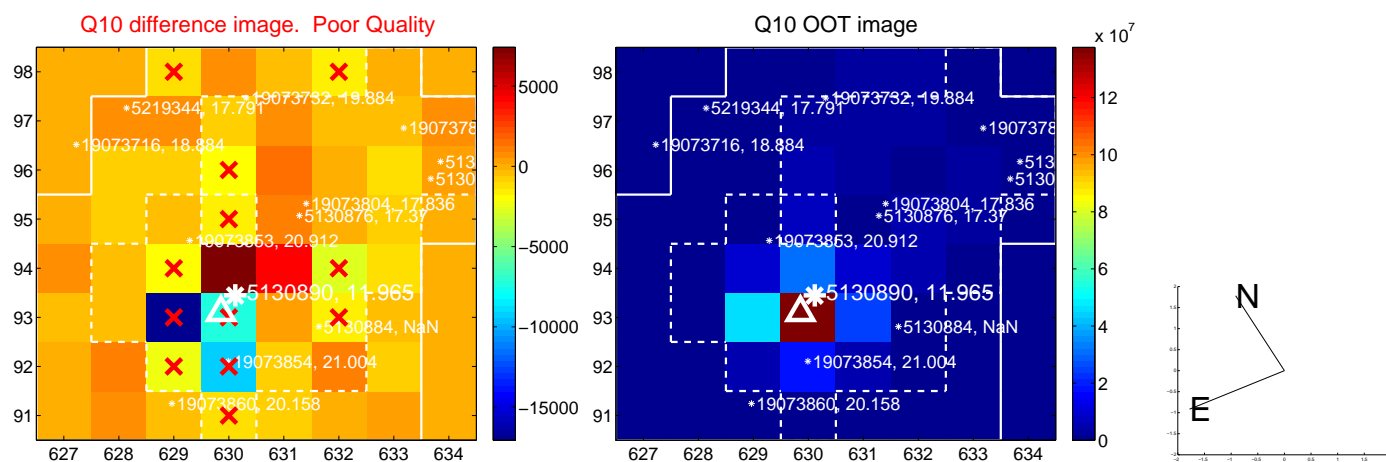
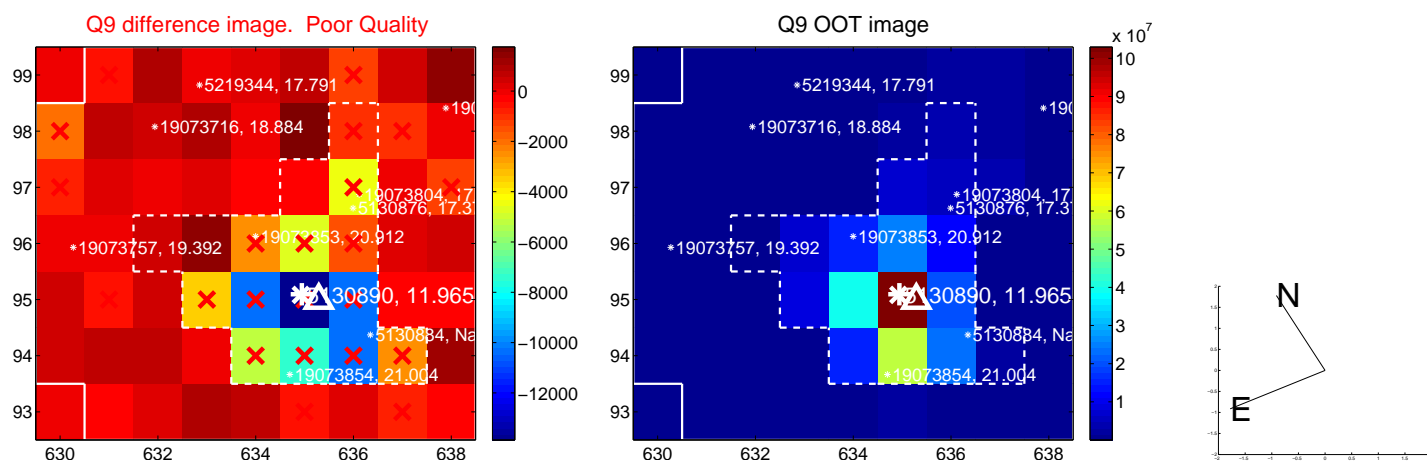
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



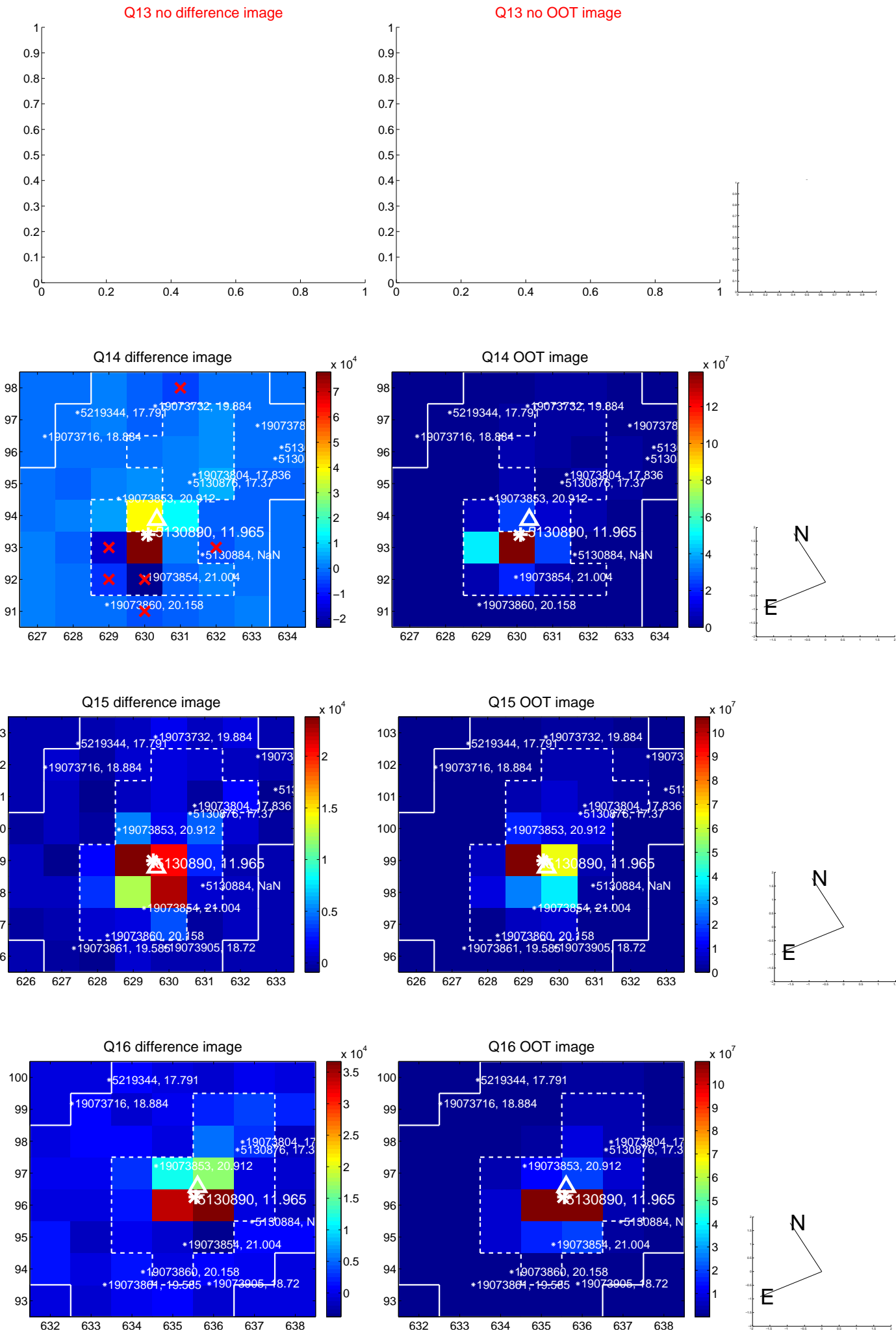
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



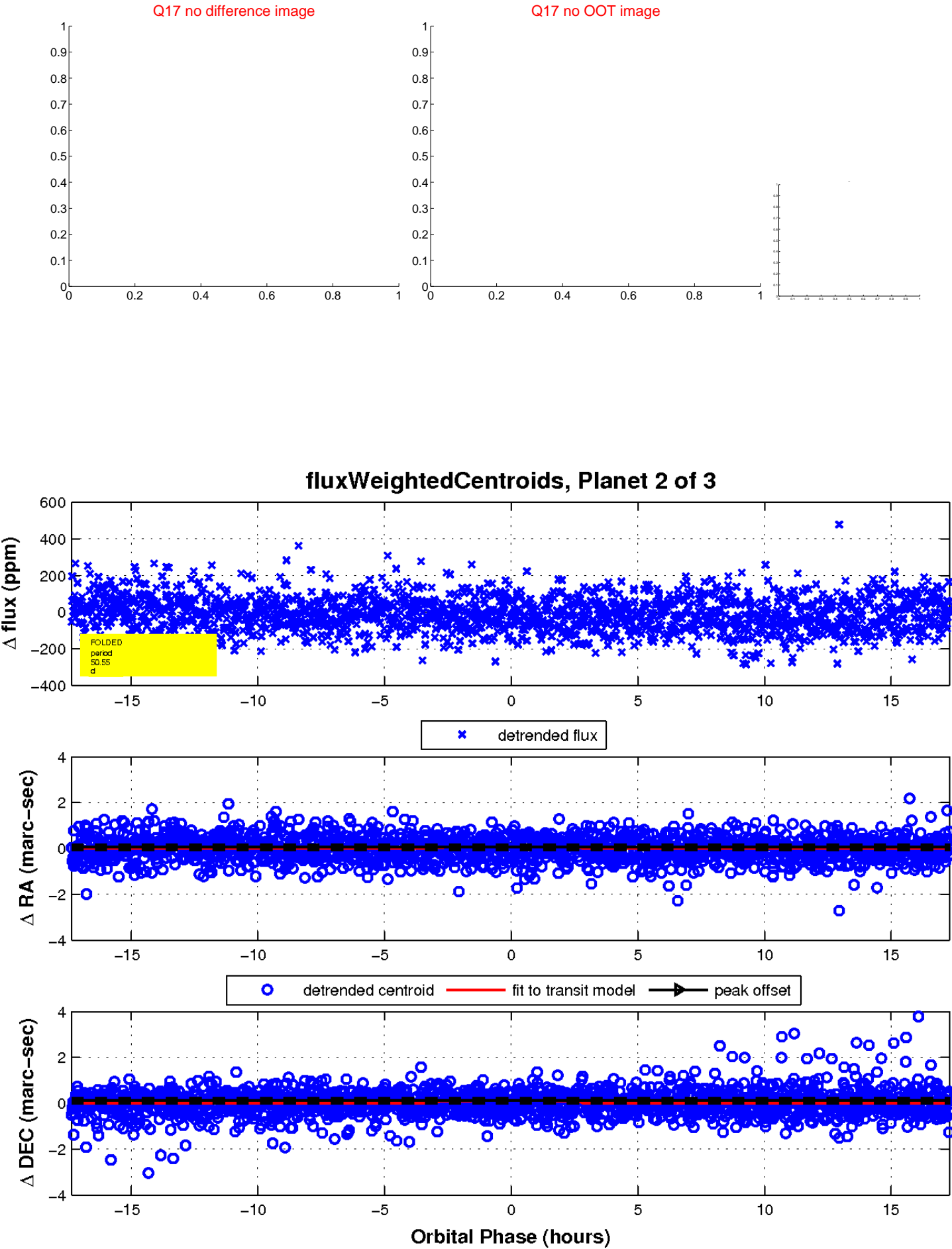
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

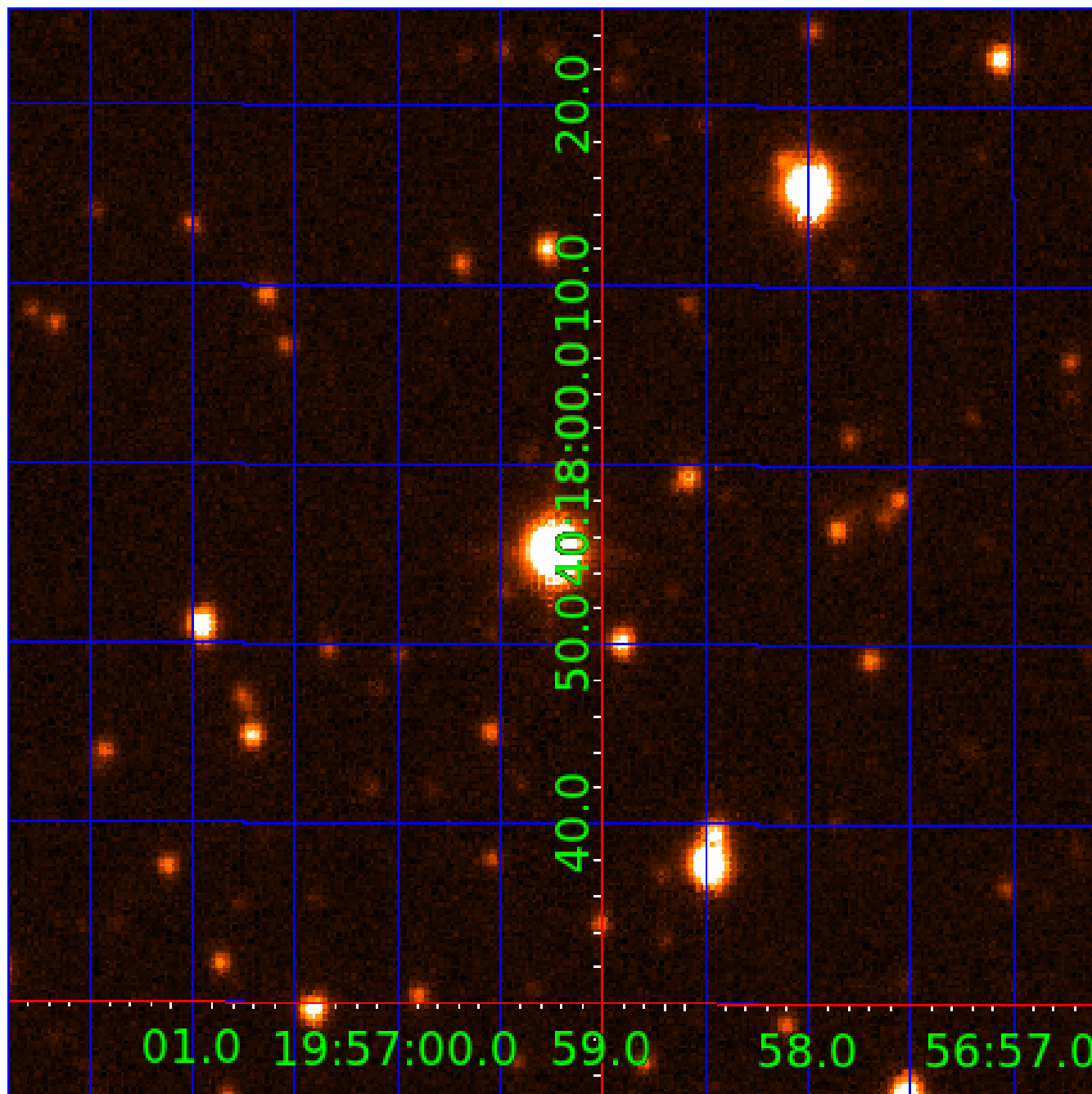


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005130890

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})
005130890-01	OBS	No	1.314977	132.045531	8.2	4.555	7.8	5.9	2.20	9251	0.70	33866.32
005130890-02	OBS	No	50.546394	166.912675	21.1	5.787	7.7	1.9	2.20	9251	1.12	261.06
005130890-03	OBS	No	2.972695	132.199526	13.9	28.035	8.2	8.2	2.20	9251	0.84	11414.54

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005130890-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
005130890-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_TRACKER—LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_NONUNIQ_ALT—MOD_TER_ALT—MOD_POS_ALT
005130890-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA_TRACKER—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS

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

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

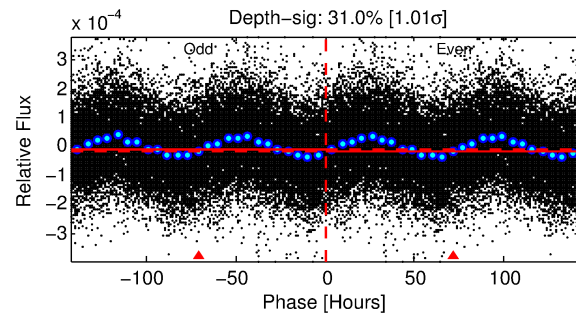
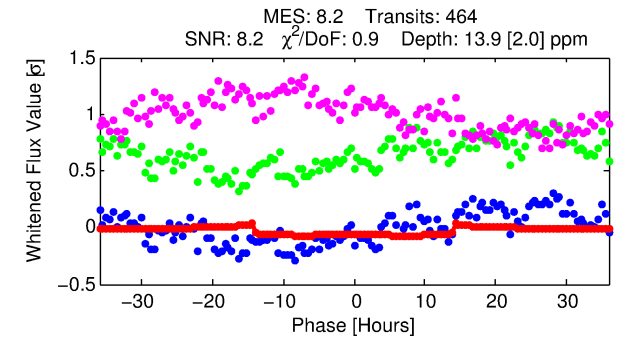
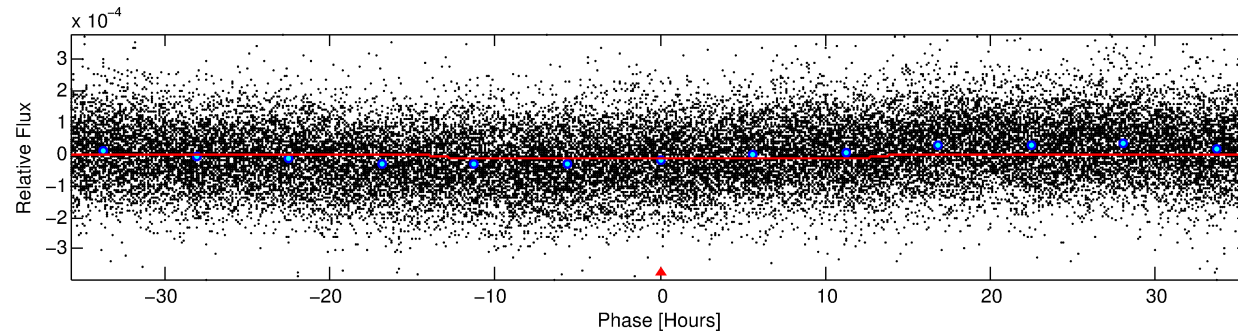
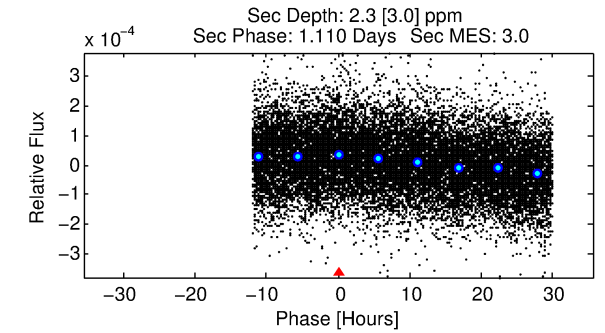
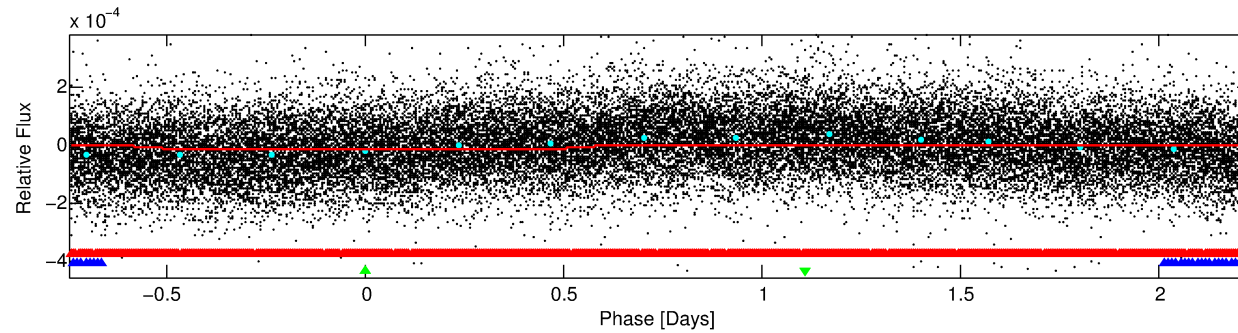
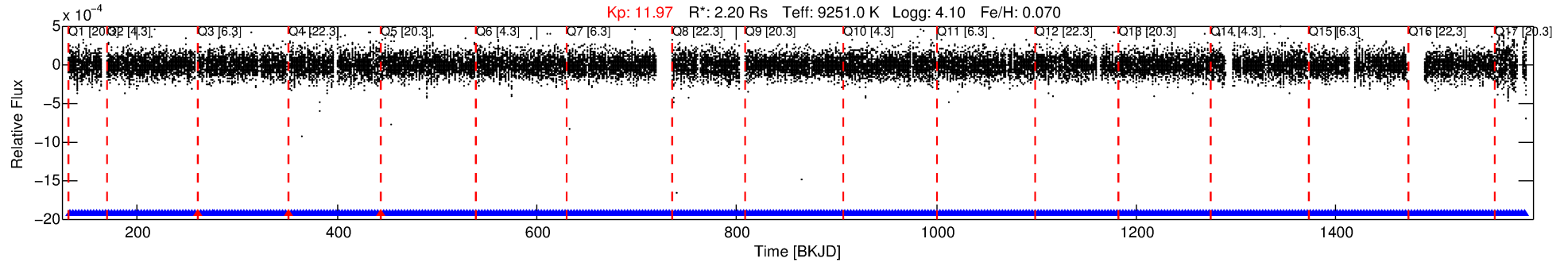
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005130890-03

No Significant Match Found

DV One-Page Summary

KIC: 5130890 Candidate: 3 of 3 Period: 2.973 d
KOI: K06530 Corr: No Ephemeris Match



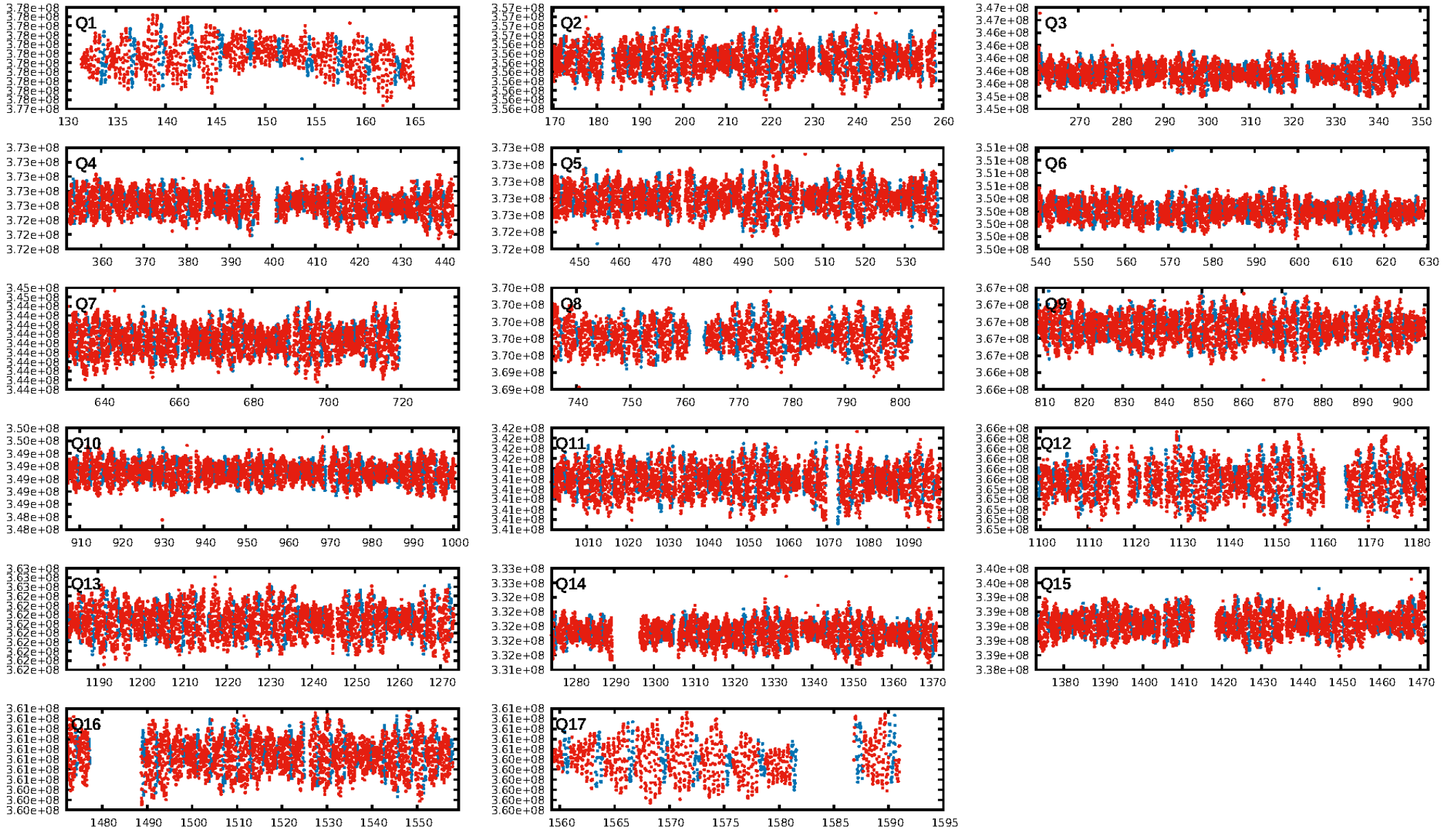
DV Fit Results:

Period = 2.97270 [0.00006] d
Epoch = 132.1995 [0.0128] BKJD
Rp/R* = 0.0035 [0.0020]
a/R* = 1.06 [0.47]
b = 0.16 [23.81]
Seff = 11414.54 [5302.26]
Teq = 2636 [306] K
Rp = 0.84 [0.60] Re
a = 0.0528 [0.0168] AU
Ag = 4.93 [8.91] [0.44 σ]
Teffp = 6072 [2682] K [1.27 σ]

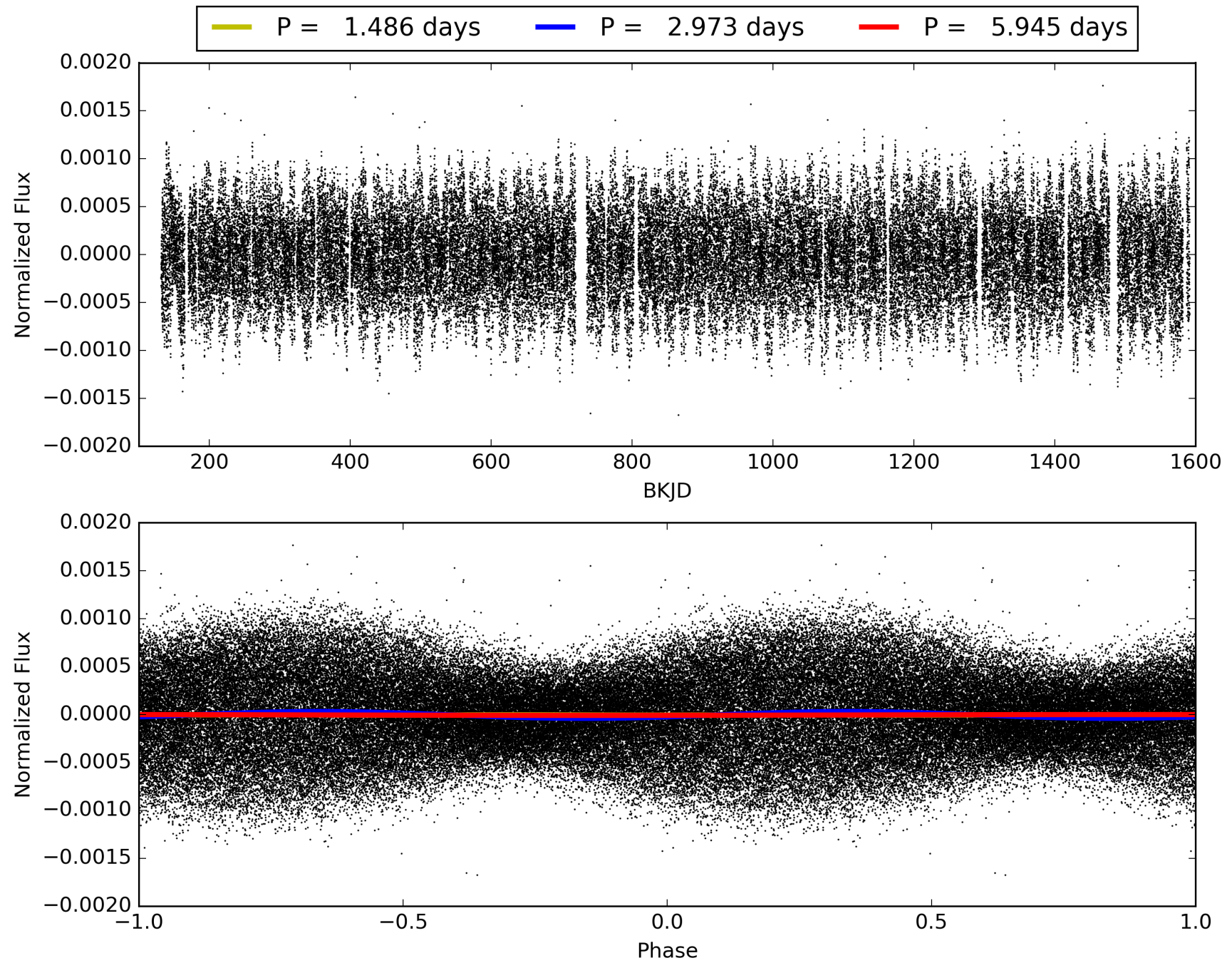
DV Diagnostic Results:

ShortPeriod-sig: 83.9% [1.40 σ]
LongPeriod-sig: 100.0% [39.89 σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 0.99 [440/443]
GhostDiagnostic-chr: 1.436
Centroid-sig: 1.1%
Centroid-so: 1.589 arcsec [1.71 σ]
OotOffset-rm: N/A
KicOffset-rm: N/A
OotOffset-st: 0/0/0/0 [0]
KicOffset-st: 0/0/0/0 [0]
DiffImageQuality-fgm: N/A
DiffImageOverlap-fno: 0.00 [0/17]

TCE 005130890-03, PDC Light Curves

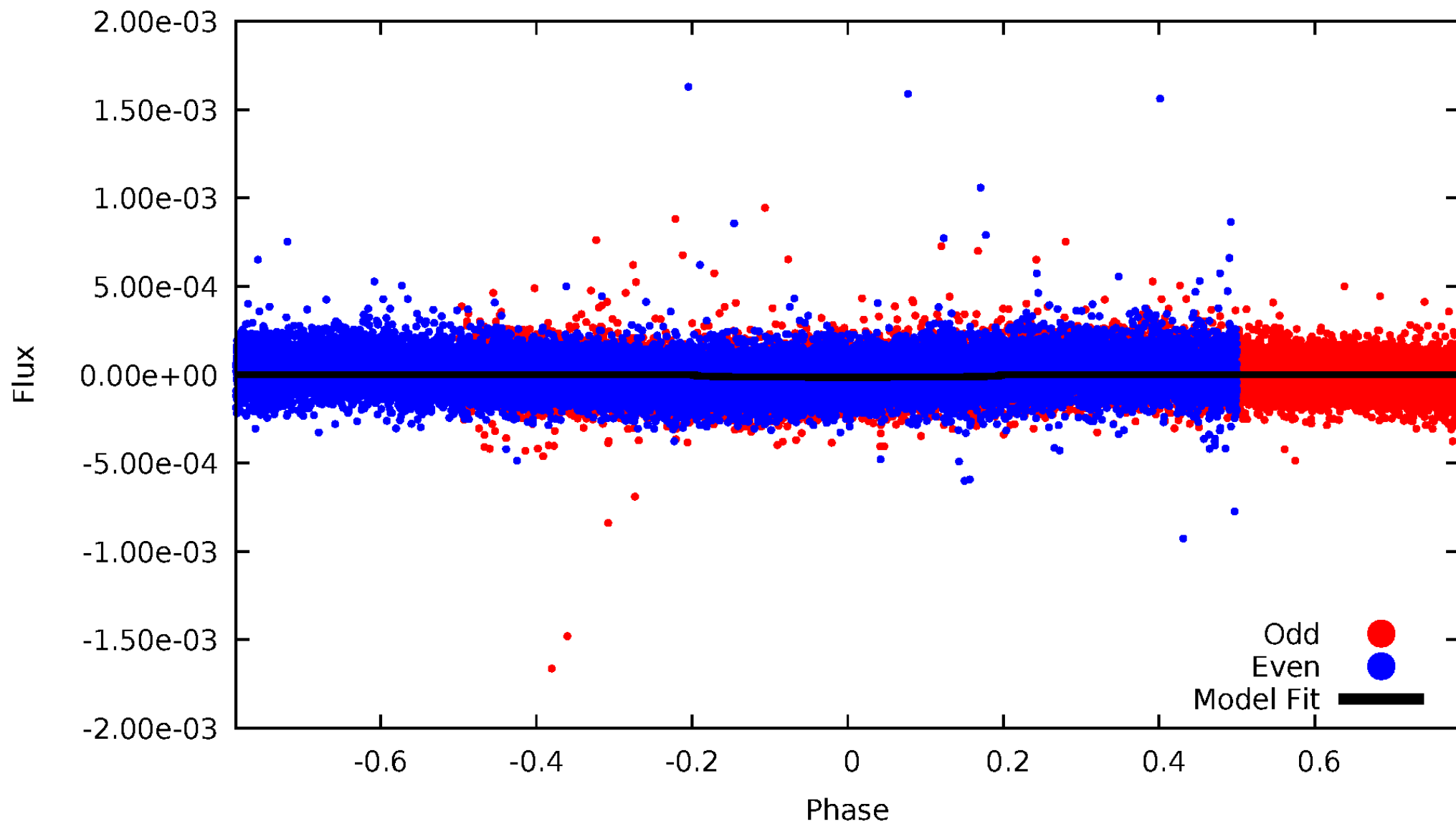


TCE 005130890-03



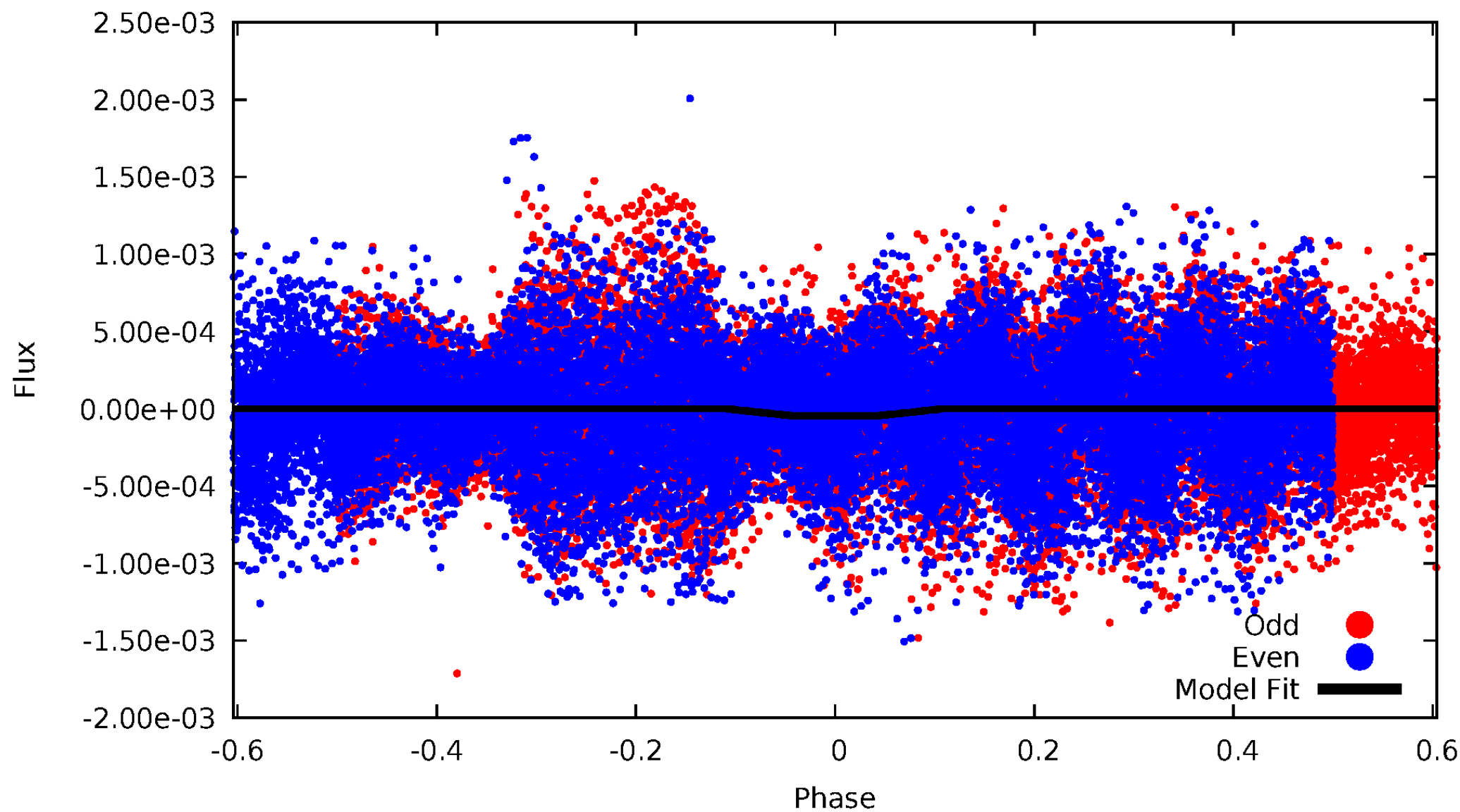
DV Odd/Even

TCE 005130890-03



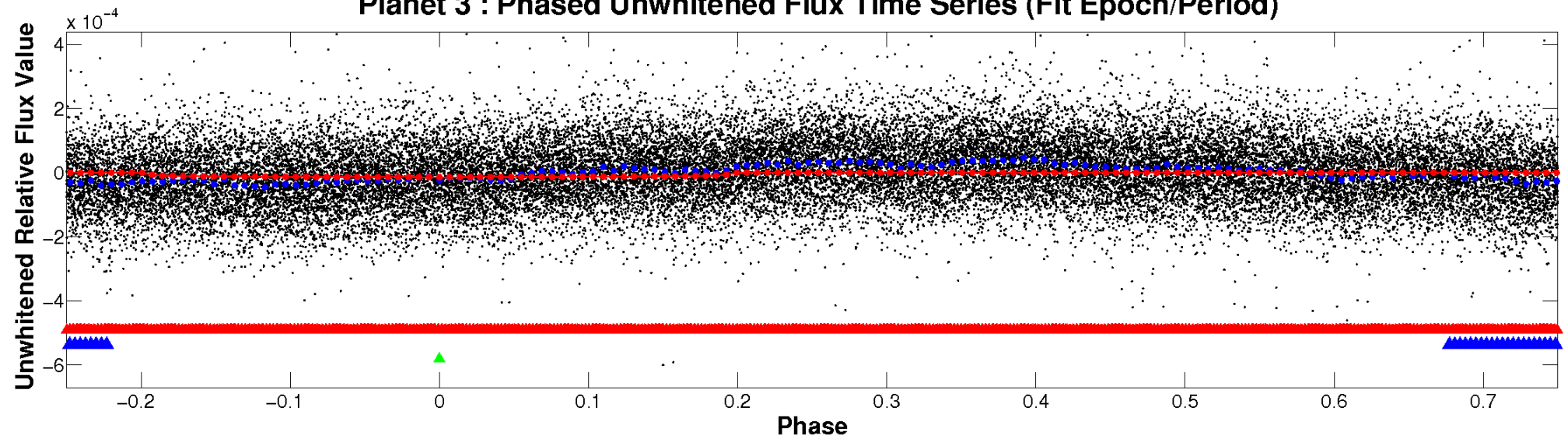
ALT Odd/Even

TCE 005130890-03

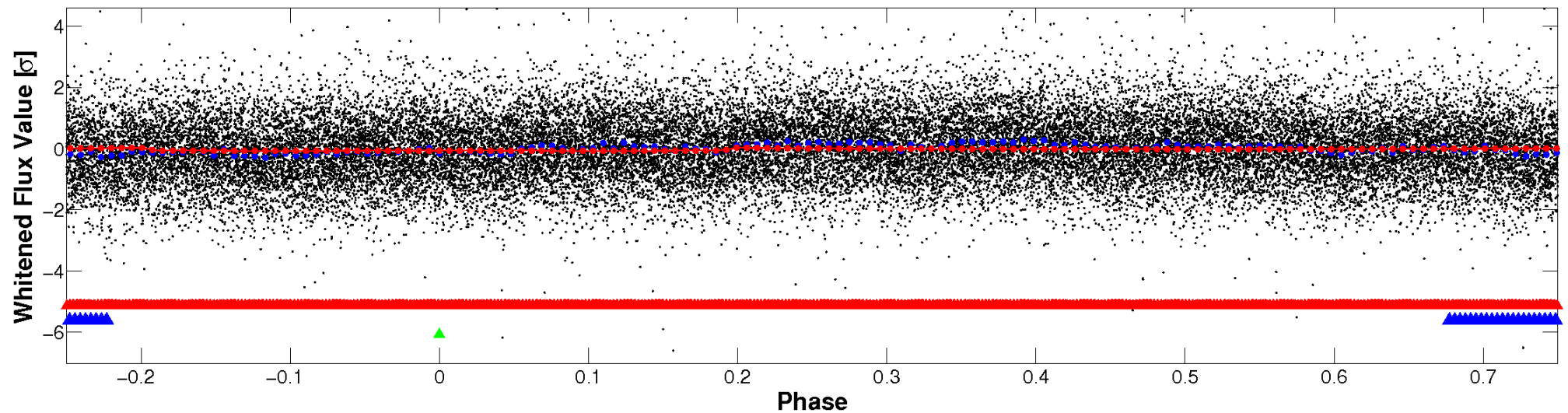


Non-Whitened Vs. Whitened Light Curve

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

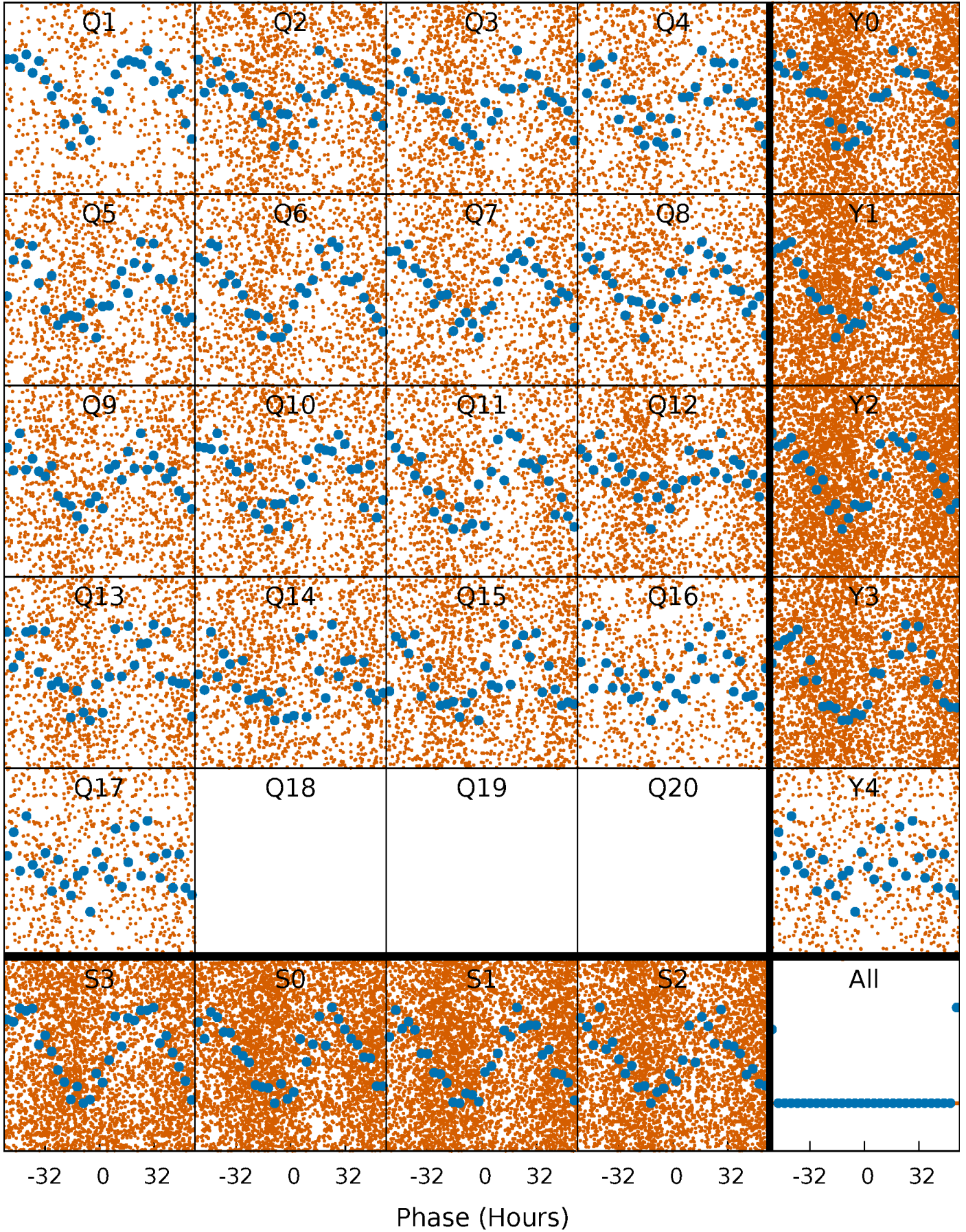


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



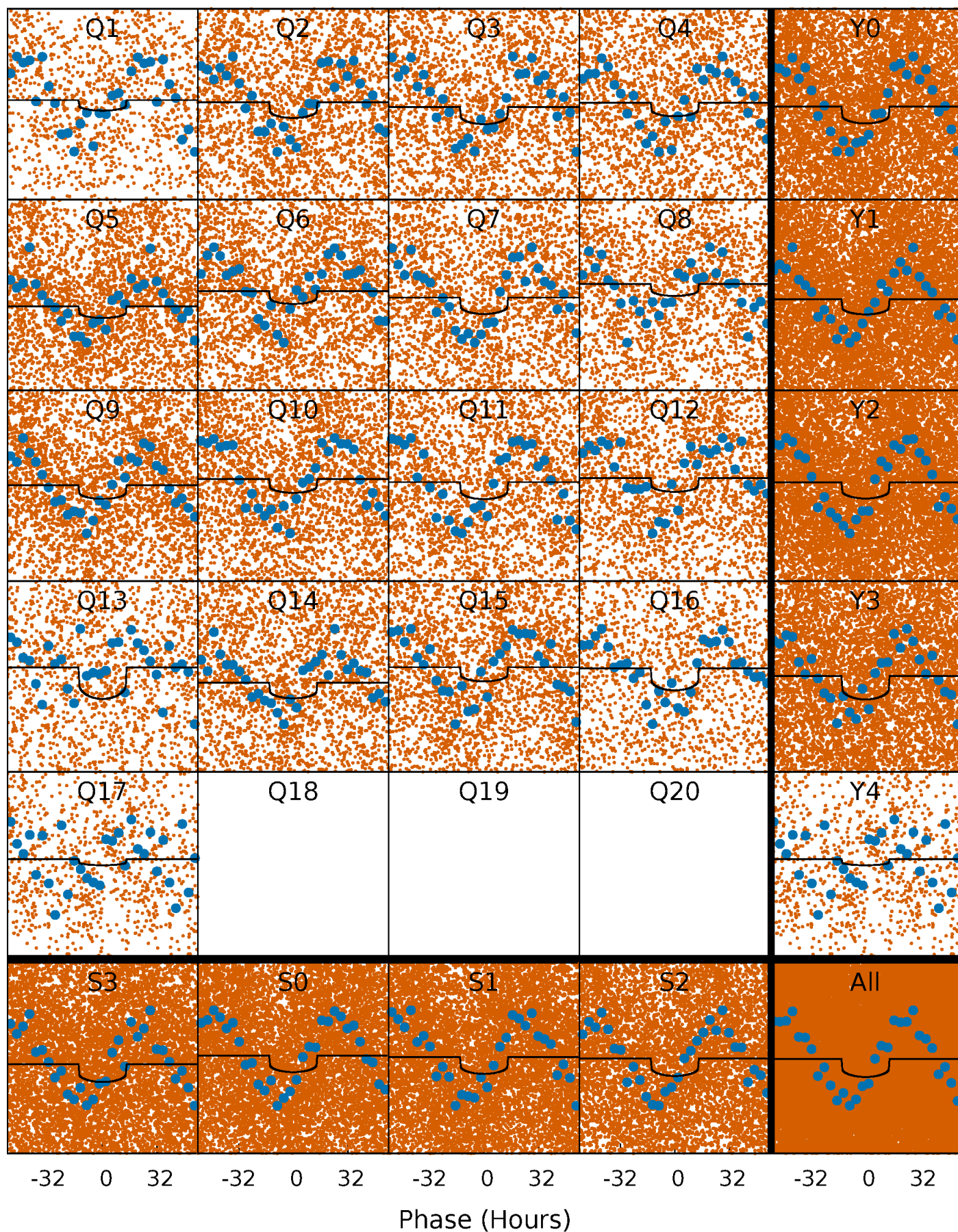
PDC Quarter-Phased Transit Curves

TCE 005130890-03 P= 2.972695 Days $T_0=132.199526$ (BKJD)



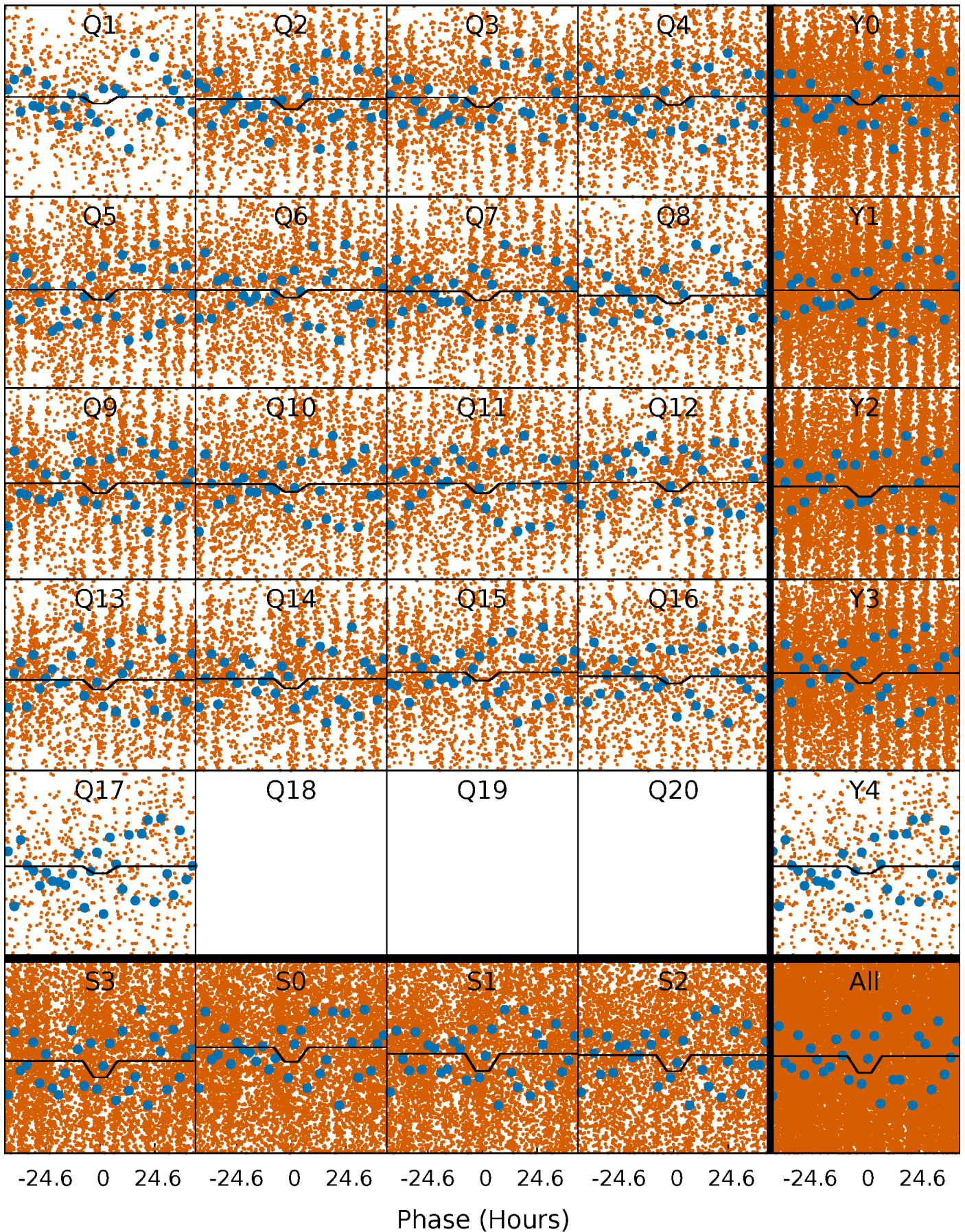
DV Quarter-Phased Transit Curves

TCE 005130890-03 P= 2.972695 Days $T_0=132.199526$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

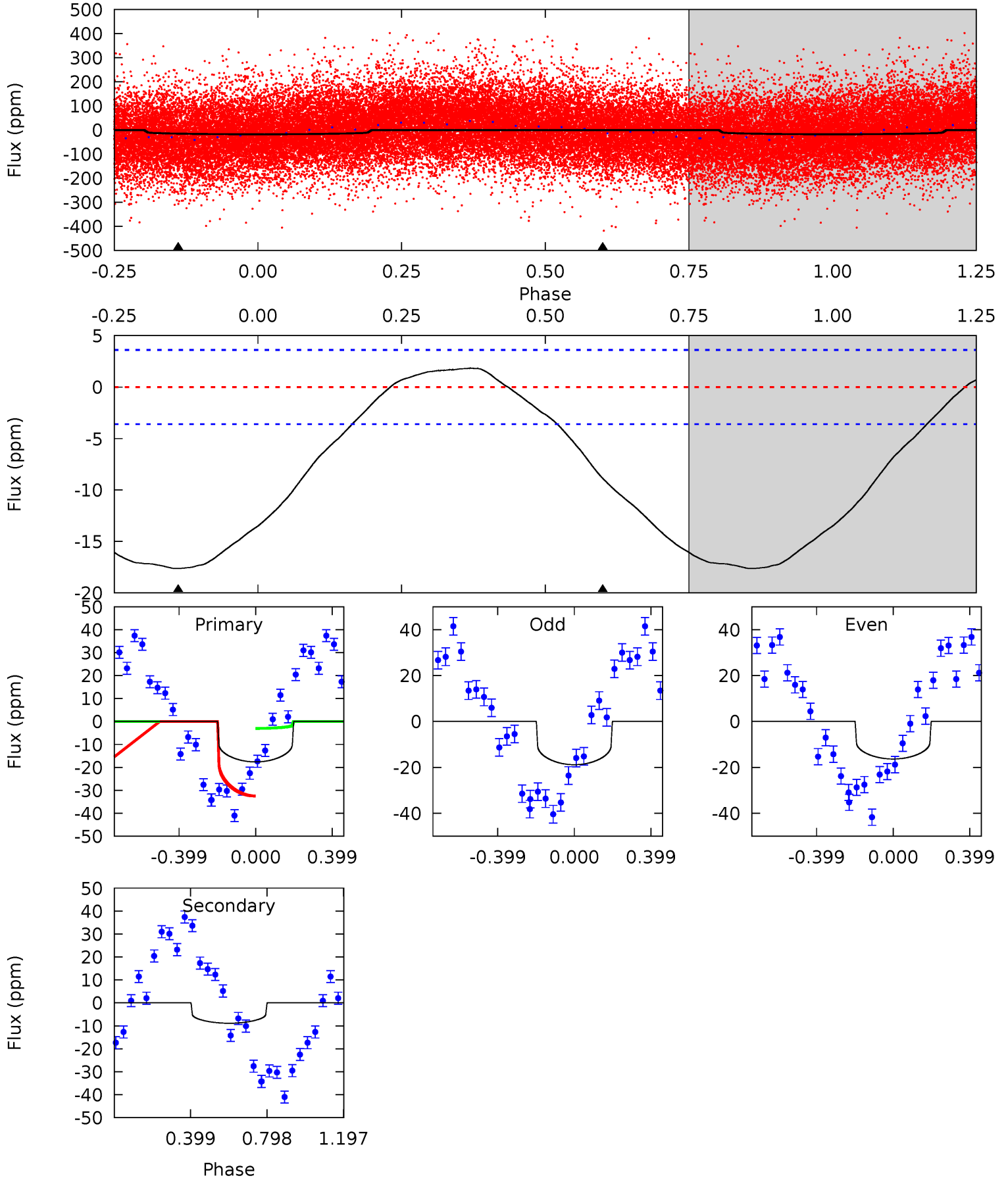
TCE 005130890-03 P= 2.972642 Days $T_0=132.207930$ (BKJD)



DV Model-Shift Uniqueness Test

005130890-03, P = 2.972695 Days, E = 129.226831 Days

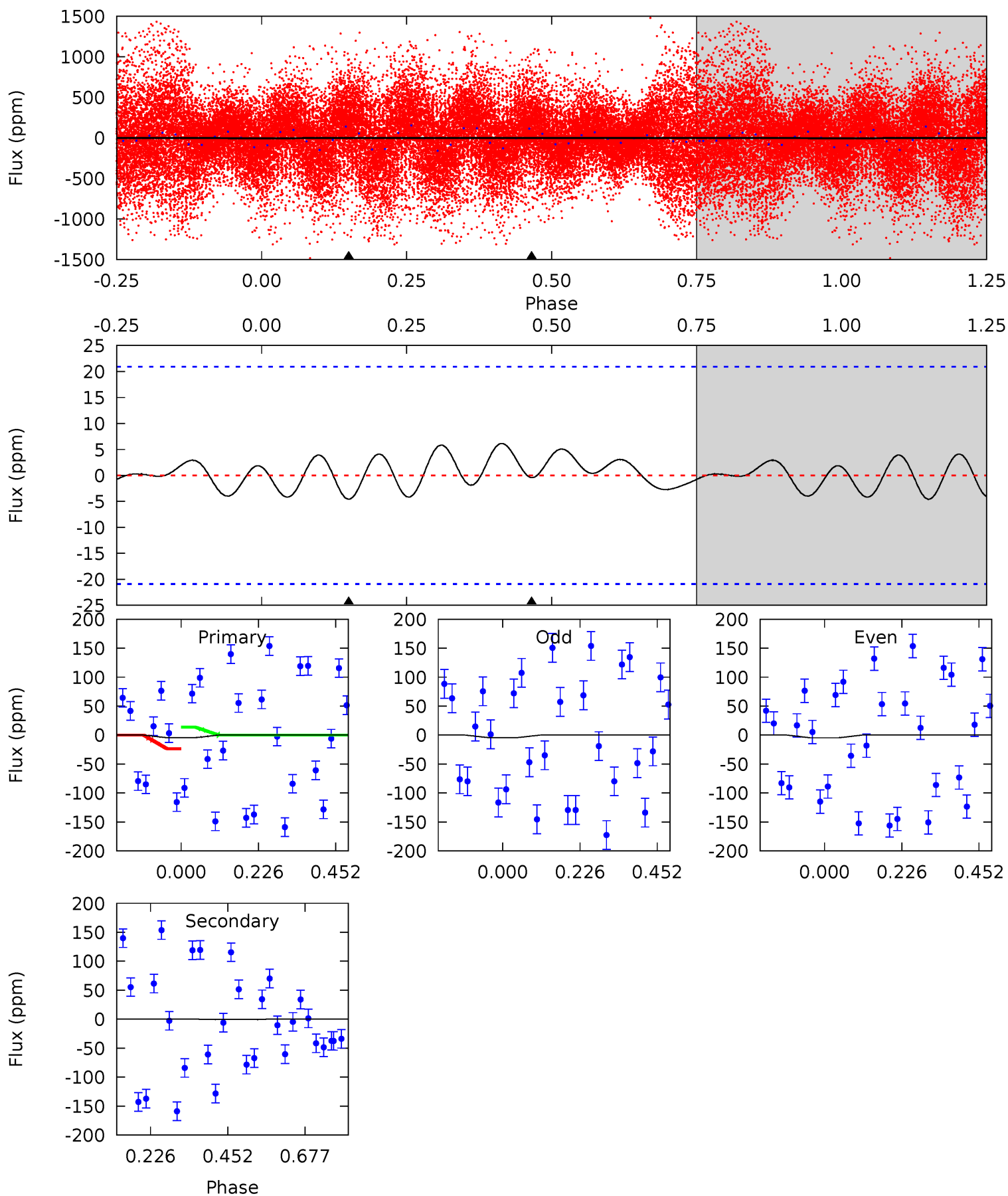
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.9	10.5	0	0	4.27	0.84	1.40	20.9	20.9	10.5	10.5	1.49	1.12	0.09	18.3



Alt Model-Shift Uniqueness Test

005130890-03, P = 2.972642 Days, E = 129.235288 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0.97	0.09	0	0	4.39	1.21	0.34	0.97	0.97	0.09	0.09	0.03	131.4	0.57	1.24



Stellar Parameters For KIC 005130890

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	9251^{+259}_{-444}	$4.099^{+0.123}_{-0.210}$	$0.070^{+0.150}_{-0.650}$	$2.203^{+0.905}_{-0.487}$	$2.222^{+0.386}_{-0.579}$	$0.293^{+0.218}_{-0.167}$
	+3%/-5%	+3%/-5%	+214%/-929%	+41%/-22%	+17%/-26%	+75%/-57%
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 005130890-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-9 ± 1	$0.88^{+0.52}_{-0.46}$	3693^{+321}_{-231}	8032^{+5512}_{-1758}	17^{+56}_{-10}
Alt.	-0 ± 5	$1.70^{+0.58}_{-0.56}$	3694^{+298}_{-253}	-3046^{+8089}_{-2035}	$0.163^{+2.980}_{-2.675}$

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

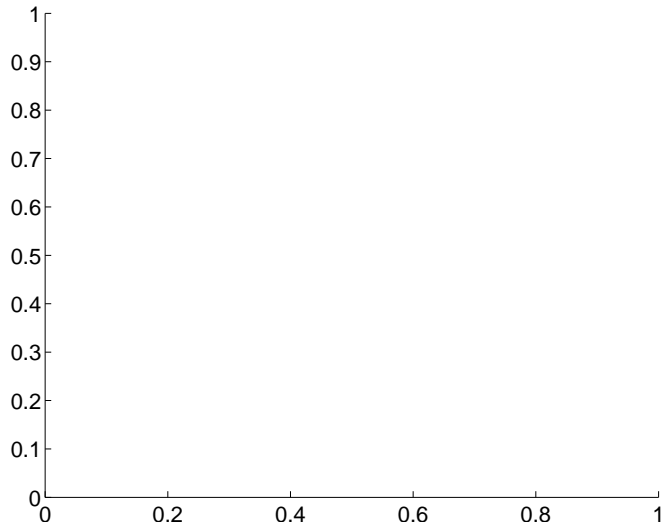
Supplemental centroid analysis for 005130890-03. **Kepler magnitude: 11.96.** Transit SNR 8.24

There are 0 quarters with good PRF difference image offsets

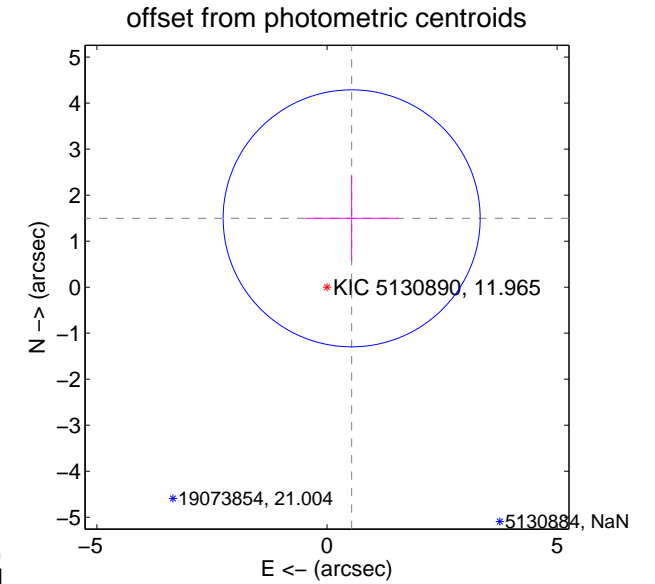
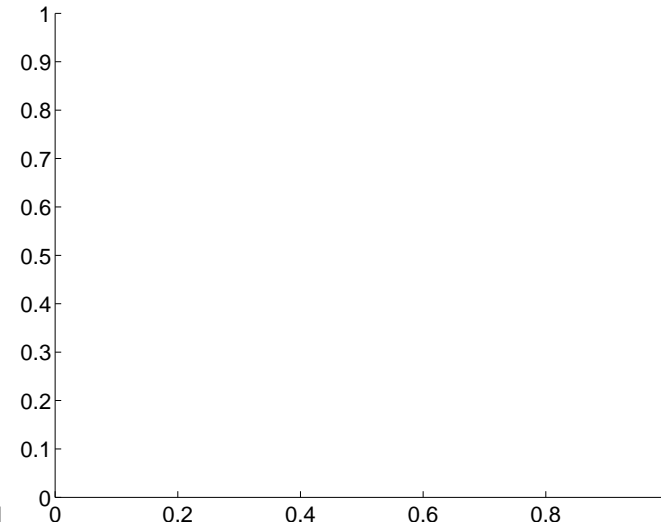
The direct PRF centroid is offset from the target star catalog position by about NaN arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	—	—	—	—
PRF-fit source offset from KIC position	—	—	—	—
photometric centroid source offset	1.59 ± 0.93	1.71	-0.54 ± 1.00	1.50 ± 0.92

There is no PRF-fit offset from OOT-fit

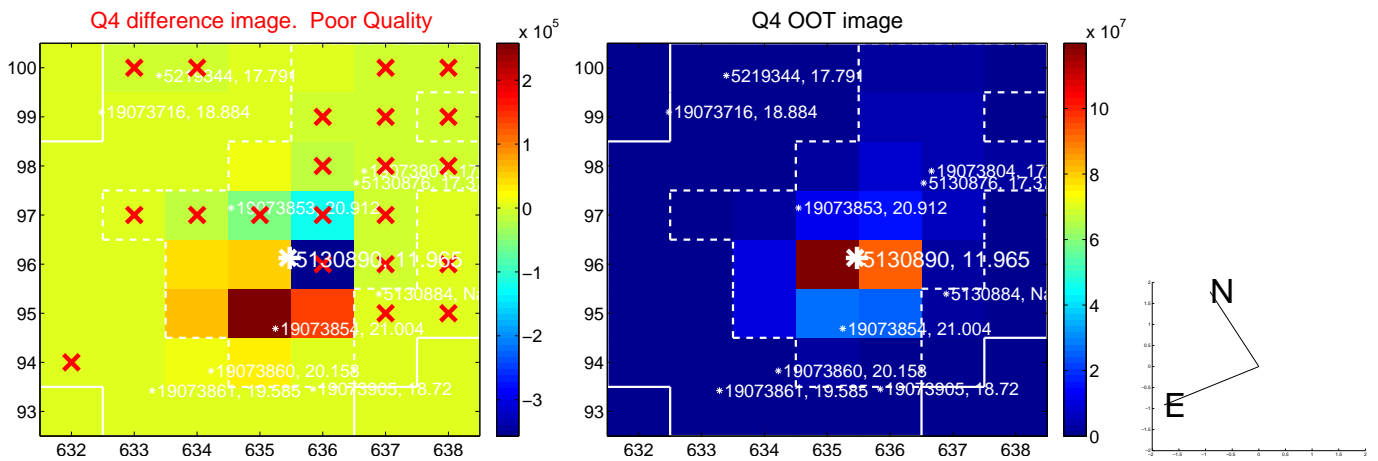
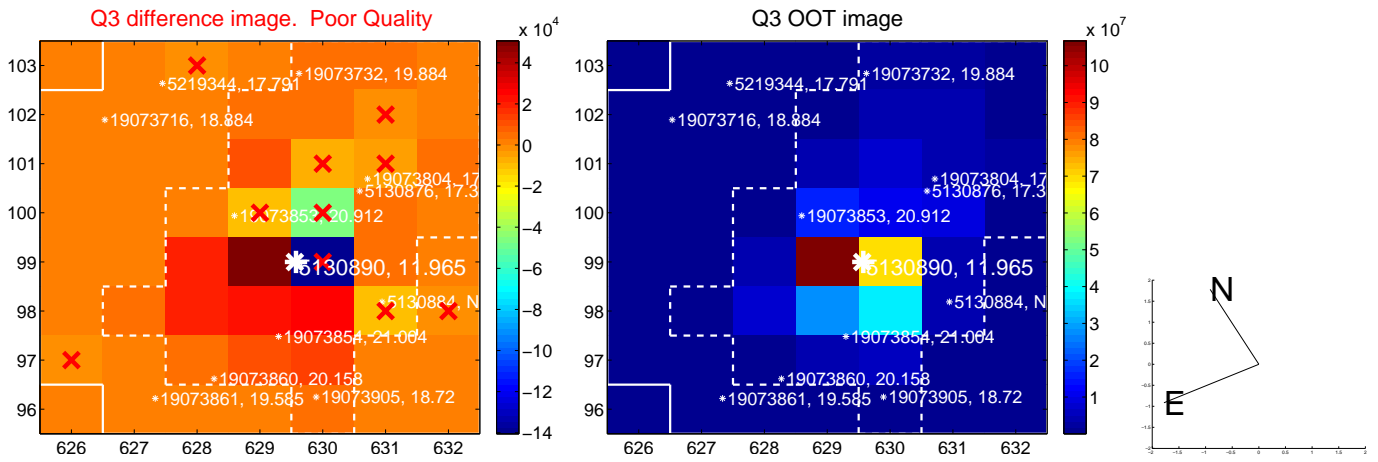
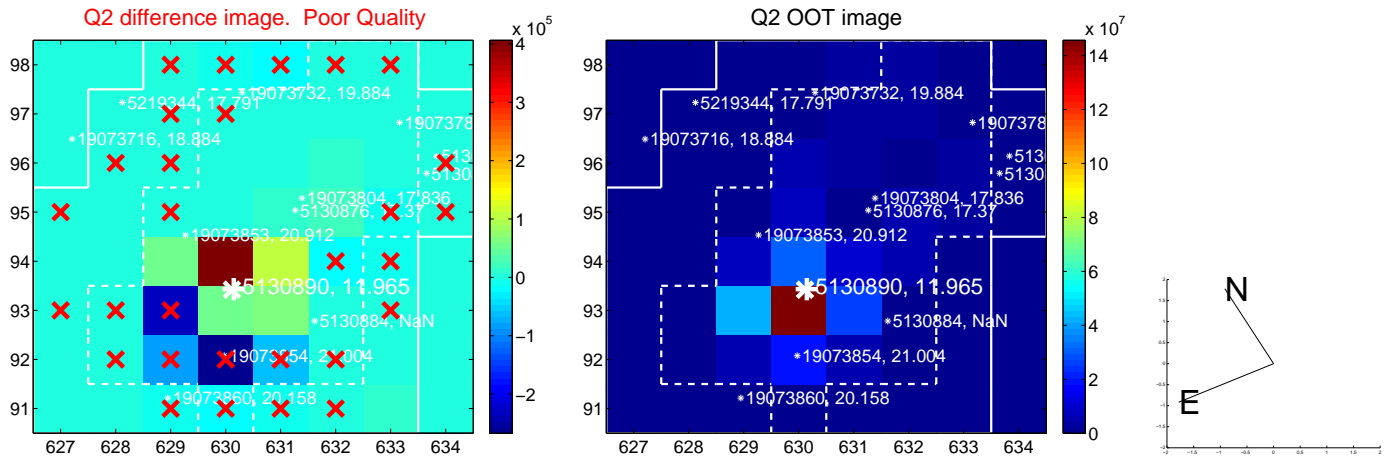
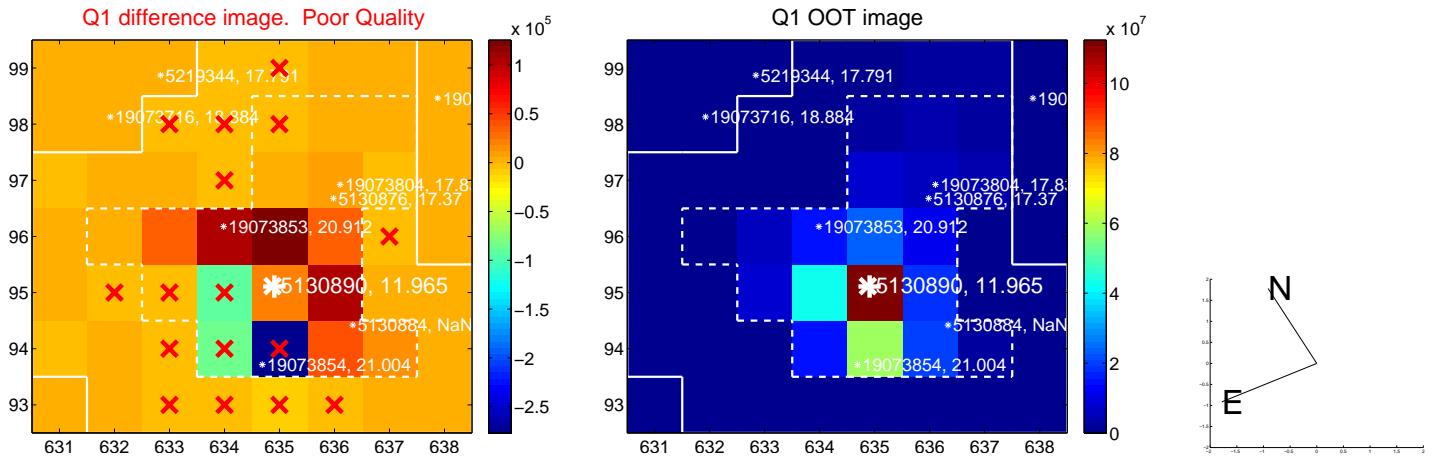


There is no PRF-fit offset from KIC

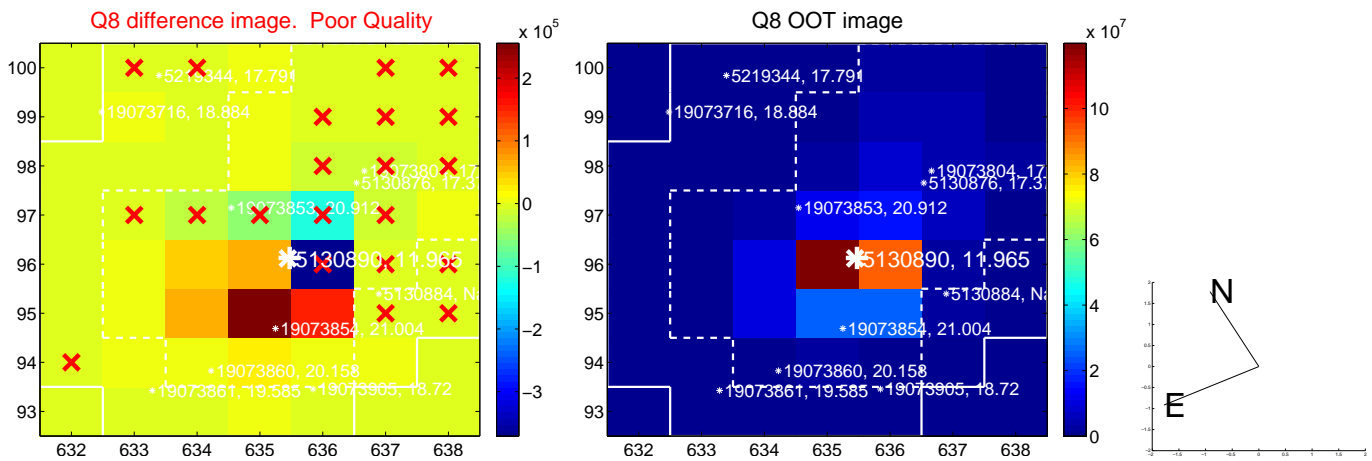
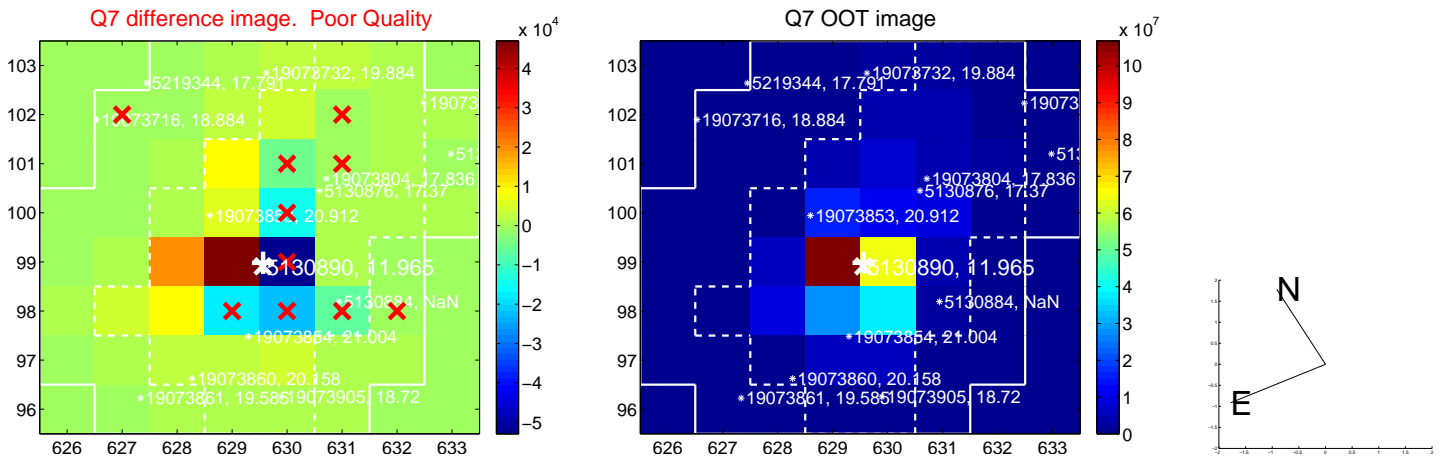
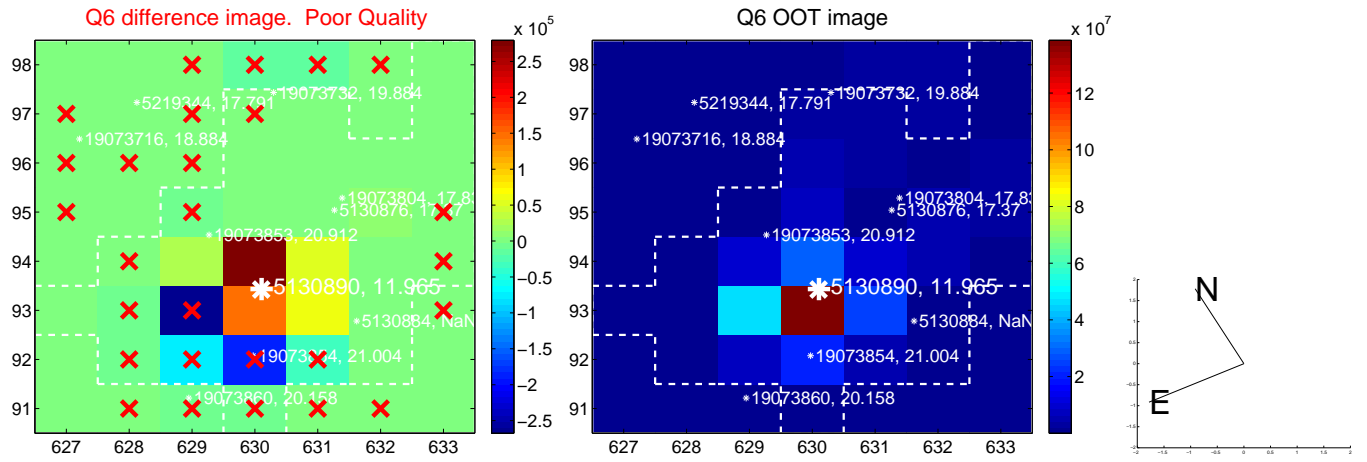
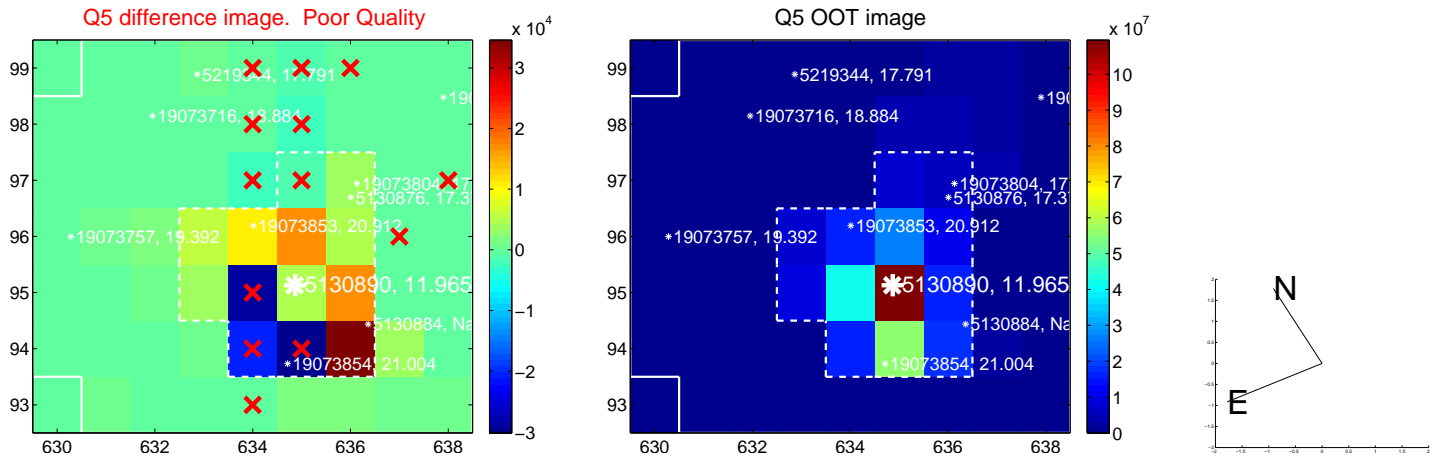


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

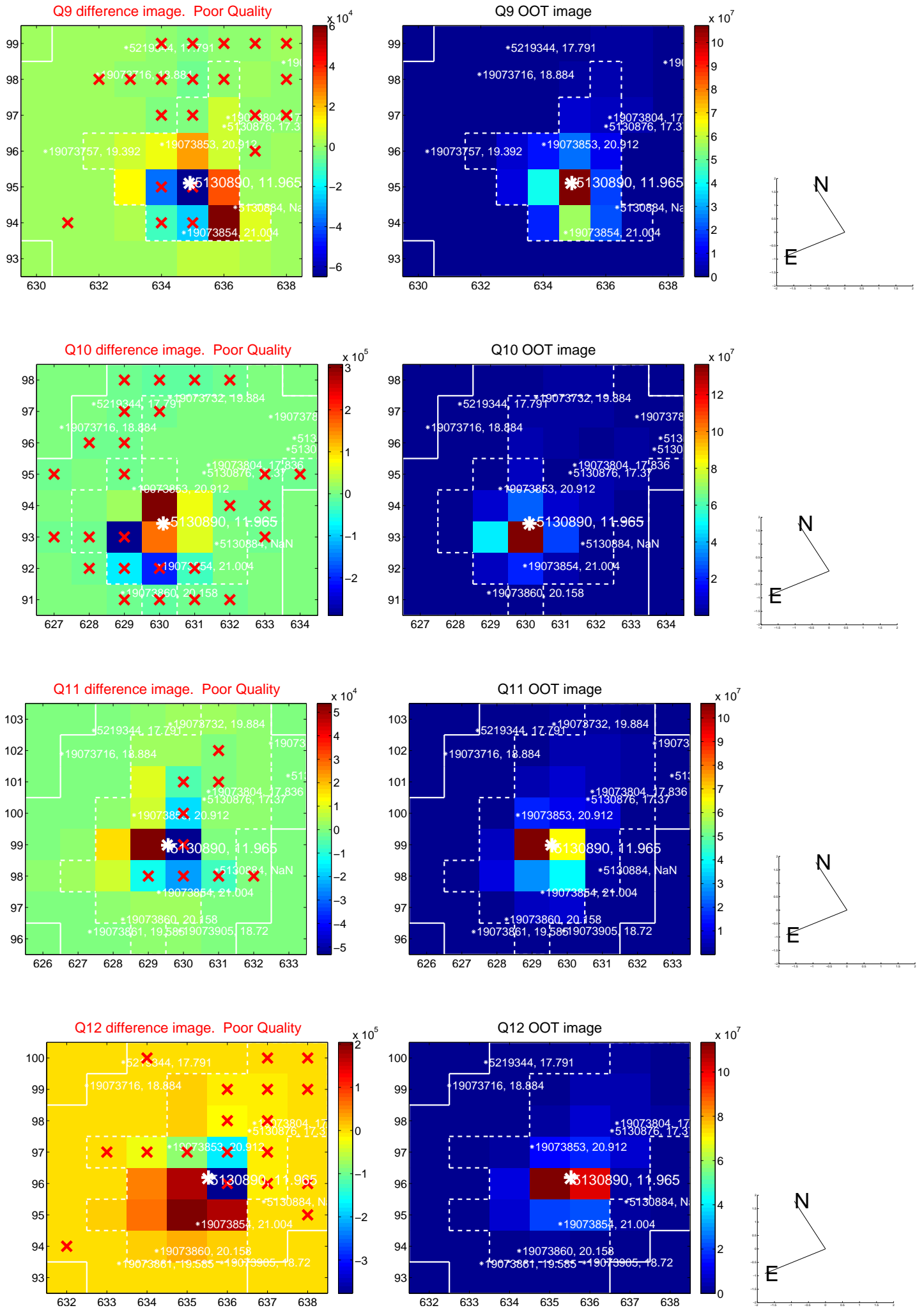
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



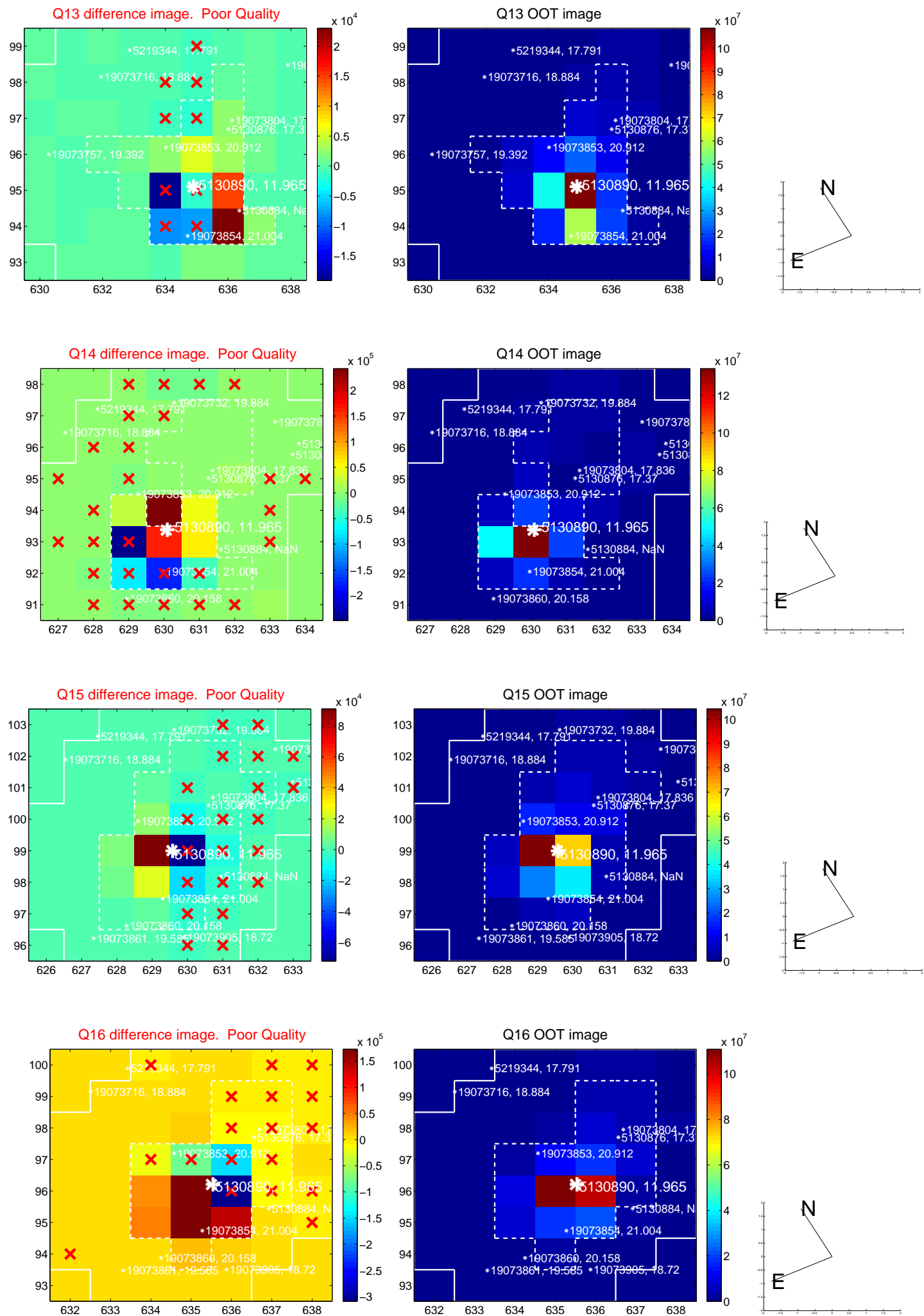
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



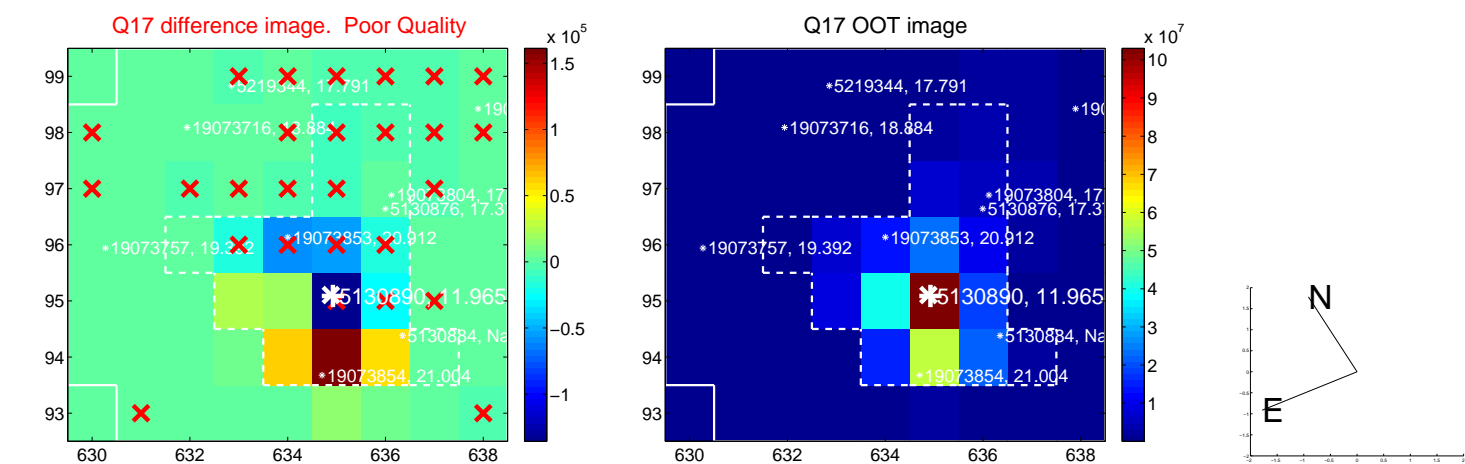
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



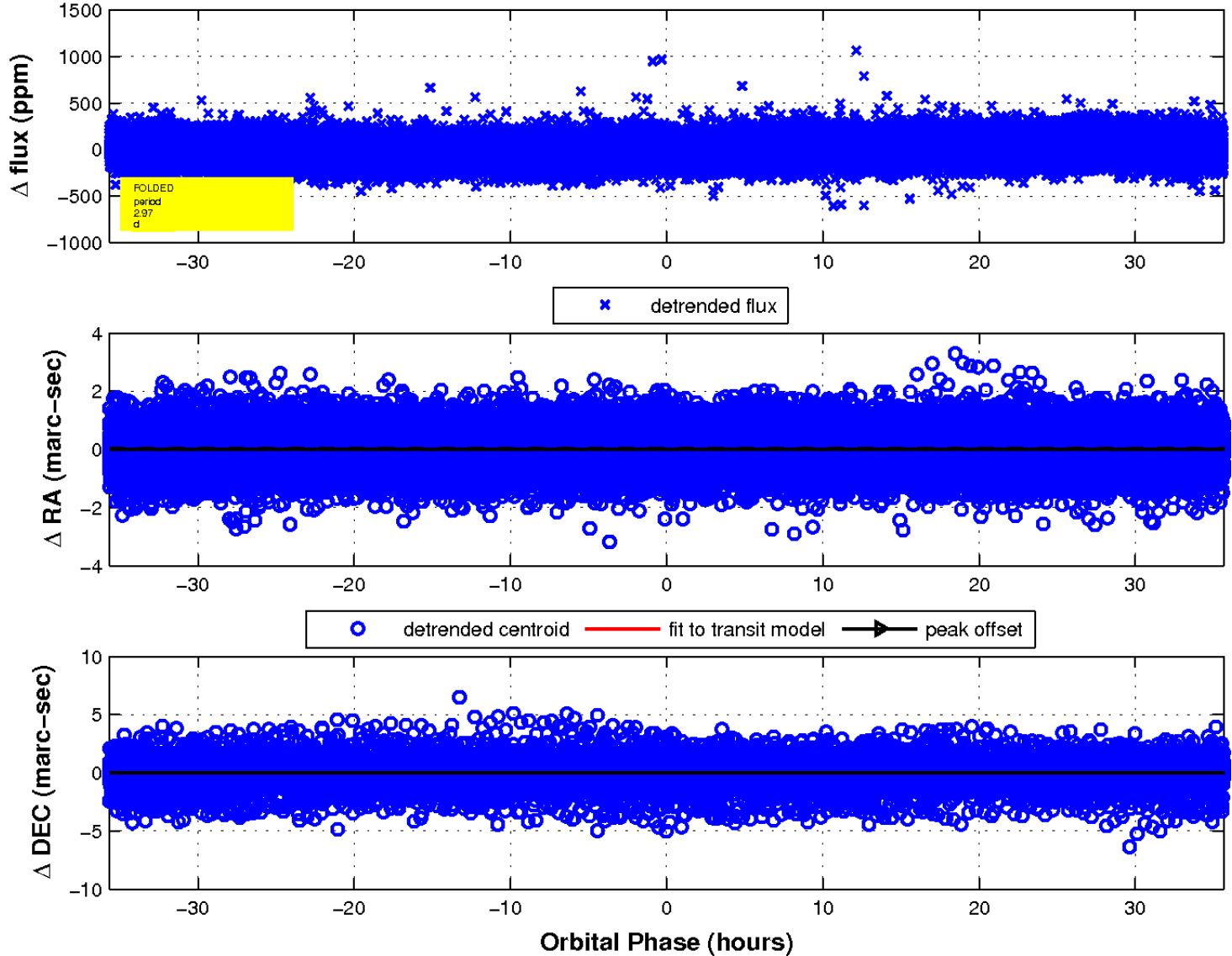
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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



fluxWeightedCentroids, Planet 3 of 3



UKIRT Image

Declination

